REPORT RESUMES

ED 003 004 24

THE SELF-CONCEPTS OF ELEMENTARY SCHOOL CHILDREN IN RELATION TO THEIR ACADEMIC ACHIEVEMENT, INTELLIGENCE, INTERESTS, AND MANIFEST ANXIETY.

BY- BLEDSOE, JOSEPH C. GARRISON, KARL C.
GEORGIA UNIV., ATHENS, COLL. OF EDUCATION

REPORT NUMBER CRP-1008 PUB DATE 62
EDRS PRICE MF-$0.36 HC-$8.40 210P.

DESCRIPTORS- *SELF CONCEPT, GRADE 4, GRADE 6, *ACADEMIC ACHIEVEMENT, *ANXIETY, *INTERESTS, *INTELLIGENCE, ATHENS, GEORGIA, SELF CONCEPT SCALE, CHILD SELF DESCRIPTION SCALE, CHILDREN'S MANIFEST ANXIETY SCALE, WHAT I LIKE TO DO (INTEREST SCALE), MICHIGAN PICTURE TEST, CALIFORNIA ACHIEVEMENT TESTS, CALIFORNIA MENTAL ABILITY TEST

RELATIONSHIPS WERE STUDIED OF ELEMENTARY SCHOOL CHILDREN'S SELF-CONCEPTS TO ACADEMIC ACHIEVEMENT, INTELLIGENCE, AND MANIFEST ANXIETY. SUBJECTS (270) WERE SELECTED FROM A GROUP OF APPROXIMATELY 600 FOURTH- AND SIXTH-GRADE PUPILS WHO WERE ADMINISTERED THE FOLLOWING GROUP TESTS--(1) SELF-CONCEPT SCALE, (2) CHILD SELF-DESCRIPTION SCALE, (3) CHILDREN'S MANIFEST ANXIETY SCALE, AND (4) AN INVENTORY TITLED, WHAT I LIKE TO DO. INTELLIGENCE MEASURES, FROM THE CALIFORNIA ACHIEVEMENT TESTS AND THE CALIFORNIA SHORT FORM TEST OF MENTAL ABILITY, WERE OBTAINED FROM CUMULATIVE RECORDS. CARDS FROM THE MICHIGAN PICTURE TEST WERE ADMINISTERED SHORTLY AFTER THE GROUP TESTS. RESULTING DATA WERE ANALYZED. FINDINGS WERE AMBIGUOUS, BUT THE AUTHORS CONCLUDE THAT THE SELF-CONCEPT OF THE STUDENT HAS AN IMPORTANT RELATIONSHIP TO HIS SUCCESS. (JK)

The Self Concepts of Elementary School Children in Relation to Their Academic Achievement, Intelligence, Interests, and Manifest Anxiety

JOSEPH C. BLEDSOE, Ph.D.
KARL C. GARRISON, Ph.D.

THE UNIVERSITY OF GEORGIA
Athens, Georgia

Cooperative Research Project No. 1008

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

THE SELF CONCEPTS OF ELEMENTARY SCHOOL CHILDREN IN RELATION TO THEIR ACADEMIC ACHIEVEMENT, INTELLIGENCE, INTERESTS, AND MANIFEST ANXIETY

Joseph C. Bledsoe, Ph.D.
Karl C. Garrison, Ph.D.

The University of Georgia
College of Education
Athens, Georgia

The research reported herein was performed pursuant to a contract with the United States Office of Education, Department of Health, Education, and Welfare.

Cooperative Research Project No. 1008

ED003004

3414A
(171)

PREFACE

The increasing recognition of the importance of how the child views himself has been followed by a variety of theoretical descriptions of the nature and influence of the child's self concept on other aspects of his development. The theoretical descriptions of the nature and development of self concepts have been followed by research studies dealing with the variety of problems in the area. If the individual's self concept is a result of learning, as most students of the problem assert, it should be possible to discover discernible differences in the self concepts of boys and girls with different experiences. A thorough and comprehensive review of the literature, however, has revealed a paucity of studies dealing with the self concepts of elementary pupils. Studies that have a bearing on the research reported herein have been carefully reviewed and are presented in Chapter II.

This cooperative research project was conducted through a contract with the U. S. Office of Education provided for in Public Law 531, Eighty-third Congress. The enormous amount of statistical work involved in the completion of this research project could not have been accomplished without the assistance and cooperation of members of the Institute of Statistics of the University of Georgia. Mr. Thomas McConnell, who wrote the programs and coordinated the statistical work, is especially to be commended. The very valuable and efficient services of Mrs. Sally Clark, the secretary for the project for most of the period, enabled the investigators to be released from many time-consuming details. Mrs. Pearla Duncan Wall served as secretary during the final three months and was most helpful in completing the typing of the manuscript and in following through with many details incident to the completion of the project. Mrs. Grace Eubank worked with the project during the entire two-year period. Her services were most useful not only in completing the project as originally conceived but also in expanding it into related studies. Her doctoral study grew out of the original project and was entitled "A Comparative Study of Elementary Pupils Whose Self Concepts are Markedly Contrary to Expectations." Mrs. Virginia Wilder also worked with the project during the entire two-year period; her cooperative efforts were helpful. Mr. Andrew Edwards worked with the staff during the first year while Mr. Oliver Bowman served as Research Assistant during the second year. Mr. Bowman was most helpful in editing the manuscript for publication.

Not only has this project been intellectually stimulating but the personal and professional associations have afforded members of the staff many enjoyable experiences. It is our sincere hope that the study will prove to be a valuable contribution to the growing body of research related to the self concept.

J.C.B.

Athens, Georgia, September, 1962. K.C.G.

TABLE OF CONTENTS

CHAPTER PAGE

I. INTRODUCTION 1

Statement of the problem 2

Statement of the hypotheses. 3

Basic assumptions 4

Limitations 7

Organization of study 8

II. REVIEW OF RELATED LITERATURE 10

Definition and interpretation 11

Measurement of self concepts 12

Development of the self concept 13

Discrepancy between self and ideal self 18

Discrepancy between self estimates and other estimates 19

Self acceptance and acceptance of others 21

Self concept and mental health 23

Phenomenal self and academic ability 28

Relation of self concepts of anxieties, interests and wishes 33

III. DESCRIPTION OF PUPIL SAMPLES, INSTRUMENTS, PROCEDURES, AND TERMS USED 36

Pupil population and samples 36

Description of instrument. 37

Self _Concept_ _Scale_ 38

Index _of_ _Adjustment_ _and_ _Values_ 38

Child's _Self_ _Description_ _Scale_ 39

Children's _Manifest_ _Anxiety_ _Scale_ 39

CHAPTER PAGE

Modified Revised California Inventory 40

What I Like to Do 40

California Achievement Tests 41

California Test of Mental Maturity 44

Stanford Achievement Tests 44

California Short Form Test of Mental Maturity 44

Stanford-Binet 45

WISC 45

Michigan Picture Test 45

Research procedures 46

Definitions of terms 49

Self concept 49

Ideal self 49

Intelligence quotient 50

Achievement scores 50

Manifest anxiety 50

Personal-social orientation 50

Parent discrepancy 51

Pentad 51

Social self 51

Socio-economic status 51

Teacher discrepancy 51

IV. FINDINGS 52

Description of self concepts 52

Description of intelligence, achievement, and interests . . 58

Description of relationships with self concept 66

CHAPTER PAGE

Correlations with self ideal concept 70

Correlations with personal-social orientation 73

Correlations with selected measures of Michigan Picture Test 75

Intercorrelations of self concept and related variables . . 85

Differences in correlations 88

Frequency distributions of Child's Self Description Scale for fourth- and sixth-grade boys and girls 91

V. CASE STUDIES OF SELECTED "UNUSUAL" PUPILS 131

Introduction 131

Case studies 135

Summary 151

VI. SUMMARY AND IMPLICATIONS 153

Educational Implications 167

LIST OF TABLES

TABLE		PAGE
1	Intercorrelations Among the Eight Interest Scores	42
2	Reliabilities of the Eight Interest Scores	43
3	Tension Index--Correlations of Scores Obtained by Two Judges on 15 Cases at Each Grade Level	47
4	Means, Standard Deviations and Tests of Significance of Several Measures of Self Concept and Manifest Anxiety of Groups of Elementary Pupils	53
5	Means and Standard Deviations of Self-Descriptive Measures Derived From the Michigan Picture Test of Groups of Elementary Pupils	56
6	Significance Values (t-tests) of Self-Descriptive Measures Derived from the Michigan Picture Test	57
7	Mean California Intelligence Quotients and California Achievement Grade Placements for Selected Groups of Elementary Pupils	59
8	Significance Values (t-test) of Subscales and Total Scores on WHAT I LIKE TO DO, An Inventory of Children's Interests	65
9	Correlations Between Self Concept and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils	67
10	Correlations Between Self-Ideal Concept and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils	71
11	Correlations Between Personal-Social Orientation and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils	74

TABLE PAGE

12 Correlations Between Tension Index of the Michigan Picture Test and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils.................................... 76

13 Correlations Between Combined Maladjustment Index of Michigan Picture Test and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils........................ 78

14 Correlations Between Psychosexual References of Michigan Picture Test and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils.. 80

15 Correlations Between Extra Punitive Needs Subscale of the Michigan Picture Test and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils........................ 82

16 Correlations Between the Personal Adequacy Subscale of the Michigan Picture Test and Age, Intelligence, Achievement and Manifest Anxiety for Selected Groups of Elementary Pupils............................ 84

17 Correlations Between the Total Number of Verbs Subscale of the Michigan Picture Test and Age, Intelligence, Achievement, and Manifest Anxiety for Selected Groups of Elementary Pupils............................ 86

18 Intercorrelations of Selected Measures of Self Concept and Related Variables for Several Groups of Elementary Pupils... 87

TABLE PAGE

19 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad One of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences.. 94

20 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Two of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences.. 96

21 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Three of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences.. 97

22 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Four of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences.. 99

23 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Five of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences..101

24 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Six of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences..103

TABLE PAGE

25 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Seven of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences....104

26 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Eight of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences....106

27 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Nine of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences....107

28 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Ten of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences....109

29 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Eleven of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences....111

30 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Twelve of the Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences....112

TABLE PAGE

31 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Thirteen of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences...114

32 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Fourteen of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences...116

33 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Fifteen of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences...118

34 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Sixteen of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences...120

35 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Seventeen of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences...122

TABLE PAGE

36 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Eighteen of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences....................................123

37 Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Nineteen of Children's Self Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences....................................125

LIST OF FIGURES

FIGURE PAGE

1 Means and Standard Deviations of Fourth-Grade Boys on Subscales of WHAT I LIKE TO DO, An Inventory of Children's Interests in Comparison with Percentiles Given on Profile Chart Provided in Test Manual.................61

2 Means and Standard Deviations of Fourth-Grade Girls on Subscales of WHAT I LIKE TO DO, An Inventory of Children's Interests in Comparison with Percentiles Given on Profile Chart Provided in Test Manual....................62

3 Means and Standard Deviations of Sixth-Grade Boys on Subscales of WHAT I LIKE TO DO, An Inventory Children's Interests in Comparison with Percentiles Given on Profile Chart Provided in Test Manual..63

4 Means and Standard Deviations of Sixth-Grade Girls on Subscales of WHAT I LIKE TO DO, An Inventory of Children's Interests in Comparison with Percentiles Given on Profile Chart Provided in Test Manual...............................64

CHAPTER I

INTRODUCTION

Philosophers, theologians, and scientists have for countless generations sought to explain the inner nature of man. The "Self," man's self, has been a recurring theme in the literature of all cultures throughout the ages. Man always has been and continues to be insatiably engaged in a never ending attempt to achieve an adequate self.

Though man has always behaved in terms of some kind of understanding of the self, the use of the concept of self in the behavioral sciences is comparatively recent. Today the concept of self has been adopted by many psychologists and educators and is the subject of much theory and experimentation. It is generally accepted that the self provides a core around which all other perceptions are organized; it gives consistency and continuity to personality. Basic to an understanding of the various and diverse behaviors of individuals is an understanding of the self.

The research worker in human development is faced with two major tasks. The first task is to secure comprehensive descriptive information about the physical, mental, emotional, and social characteristics of the individual at successive ages. The second task is to investigate the interactive relationship of these measures and the relationship of these measures to the physical and social environment.

The present study is concerned with one of the most vital areas of human growth, the self concept. An individual's perception of himself may well be the central factor influencing his behavior. Surely, it is one of the most important elements of his total behavior. The self is involved in social reactions; it operates in the service of need satisfaction, particularly in the enhancement of the self or in relation to self esteem; it is a vital force in effective adjustment. Snygg and Combs (64) in their statement of phenomenological self theory write that the basic human need is the maintenance and enhancement of the phenomenal self. They point out that human beings are conscious of the future so they strive to preserve the self as it exists and to build it up and strengthen it against the future of which they are aware. Any analysis of an individual's behavior that does not take into consideration his perception and evaluation of himself is incomplete.

I. STATEMENT OF THE PROBLEM

It is the major purpose of this investigation to study the self concepts of fourth- and sixth-grade pupils in relation to academic achievement, intelligence, interests, and manifest anxiety.

Specifically, the objectives of this study are stated as follows:

1. To determine the self concepts of a group of fourth-grade children and a group of sixth-grade children.
2. To measure the academic achievement, intelligence, interests, and manifest anxiety of the groups of children selected for the study.
3. To compare the self concepts of fourth- and sixth-grade boys with those of fourth- and sixth-grade girls.
4. To compare the self concepts of fourth- and sixth-grade children.
5. To determine any relationships which exist between the self concepts of fourth- and sixth-grade children and their academic achievement, intelligence, interests, and manifest anxiety.

II. STATEMENT OF HYPOTHESES

The following hypotheses are grouped within logical categories as indicated. In order to be amenable to empirical testing, most of them are stated as null hypotheses.

Self concepts.

1. The self concepts of fourth-grade boys are similar to those of sixth-grade boys.
2. The self concepts of fourth-grade girls are similar to those of sixth-grade girls.
3. The self concepts of fourth-grade boys are similar to those of fourth-grade girls.
4. The self concepts of sixth-grade boys are similar to those of sixth-grade girls.

Relationships of self concepts to selected variables.

5. There is no significant relationship between measures of the self concept and measures of academic achievement among fourth- and sixth-grade pupils.
6. There is no significant relationship between measures of the self concept and intelligence test scores among fourth- and sixth-grade pupils.
7. There is no significant relationship between measures of the self concept and manifest anxiety among fourth- and sixth-grade pupils.
8. The interests of fourth- and sixth-grade pupils are not significantly related to self concepts.

Differences in relationships of self concepts and selected variables.

9. The correlations between self concepts and intelligence factors, achievement variables, interest scores, and manifest anxiety scores of fourth-grade boys are not significantly different from the correlations of these several variables for fourth-grade girls.
10. The correlations between self concepts and intelligence factors, achievement variables, interest scores, and manifest anxiety scores of sixth-grade boys are not

significantly different from the correlations of these several variables for sixth-grade girls.

11. The correlations between self concepts and intelligence, achievement, interests, and manifest anxiety of fourth-grade boys do not differ from the corresponding correlations of sixth-grade boys.

12. The correlations between self concepts and intelligence, achievement, interests, and manifest anxiety of sixth-grade boys do not differ from the corresponding correlations of sixth-grade girls.

Self Descriptions.

13. In describing characteristics most and least like themselves, the patterns of self-description of fourth-grade boys, fourth-grade girls, sixth-grade boys and sixth-grade girls are not significantly different from that to be expected by chance. Stated differently, where five choices are presented, one fifth of each group will select each option as being most and least like themselves.

14. In describing characteristics most and least like themselves, the patterns of self-description of fourth-grade boys are similar to those of fourth-grade girls.

15. In describing characteristics most and least like themselves, the patterns of self-description of sixth-grade boys are similar to those of sixth-grade girls.

16. In describing characteristics most and least like themselves, the patterns of self-description of fourth-grade boys are similar to those of sixth-grade boys.

17. In describing characteristics most and least like themselves, the patterns of self-description of fourth-grade girls are similar to those of sixth-grade girls.

Case studies.

18. A comparison of circumstances of selected pupils who have relatively low self concepts as compared with relatively high teacher opinions (rated with the same instrument) and circumstances of selected pupils who have relatively high self concepts as compared with relatively low teacher opinions will reveal differences.

III. BASIC ASSUMPTIONS

The investigators accept the viewpoint that the self is influenced by growth and experience. All forces acting upon the child influence the self concept. Such a comprehensive self theory rests upon three theoretical assumptions. The specific assumptions of this investigation are dependent upon these underlying ones.

1. Maturation influences one's concept of self, one's perception of others' self concepts, and the direction and change in the self concept.

Maturation may be thought of as levels of developmental progress in relation to the total span of development. Each individual experiences change as he progresses from a helpless, simple system to a complex, integrated system. Concepts of growth and maturity describe progress toward more complex organization which in turn makes possible more effective performance. The self concept is influenced by learning throughout the life span of the individual. Maturity level, then, influences the self concept and the direction and change in the self concept.

2. The self emerges as the individual differentiates his perceptual field in becoming an object to himself.

Perception is a focal point of self theory. The self concept which the child develops is a result of what the child is told to do and how he is treated by others. Because the child has few or no standards for studying good or bad behavior, he accepts the standards placed before him by others. This concept of self which the child accepts becomes fixated as he grows older, and he organizes his private world around his image of self. As the self becomes more objective and more integrated, it becomes a more powerful force determining behavior. Snygg and Combs (64) conclude that the phenomenal self includes not only the physical self, but all those things which are described as "me." They state that the phenomenal self "includes all those parts of the phenomenal field which the individual experiences as part or characteristic of himself" (64, p. 58).

Each individual lives in a private world of experience. If an outsider is to understand the behavior of another individual, he must be aware of the value structure of the self concept of that individual. This concept has been forcefully stated by Bills:

> Since each of us has experience, the raw data of which vary from that of any other person, and since we are set to interpret this experience according to our own form of perceptual organization, it is obvious that each of us lives his life in his own individual world. . . Constancy of perception is a necessity for experience. Our interpretations of our past experience provide this consistency and serve as a screen through which we receive new experiences. Thus, the present tends to be interpreted as the past--present experience is more or less structure-bound by the past.[1]

3. Education can facilitate human development by providing an educational program which will enable people to develop self concepts useful for effective living.

Children and adolescents are continuously engaged in the process of seeking a sense of individual identity and selfhood. To its students, the school must offer proper guidance aiding them to develop more accurate concepts of themselves and society. The function of the school as seen by Snygg and Combs (64) is that of providing situations where the individual is free to seek the satisfaction of his need for maintaining and enhancing his "self."

In addition to these three assumptions based on theoretical considerations, there are three direct assumptions upon which this research rests.

---

[1] Bills, R. E., Psychological theory in education: solution or problem? Address delivered at Center for Continuing Education, University of Georgia, January 17, 1962.

4. It is assumed that the instruments employed for estimating self concept, interest, intelligence, achievement, and manifest anxiety are sufficiently valid for use in this exploratory study.
5. Further, the investigators have assumed that the pupils responded with frankness and honesty in their self concept evaluations and that the students were motivated to cooperate and achieve on tests involving these needs.
6. It is assumed that the randomly selected fourth- and sixth-grade pupils from the schools of Clarke County make up a representative sampling of the fourth- and sixth-grade pupils from Clarke County in particular and from Georgia in general.

IV. LIMITATIONS

The limitations of this study are listed as follows:

1. Temporal limitation. It is recognized that the Self is subject to change; therefore, the self concept of each subject reported in this study is the concept of that particular individual at the moment that he was tested. However, it is the considered judgment of the investigators that the errors of measurement of the self vary in both directions rather than being constant and are therefore likely in effect to be cancelled.

2. Geographical limitation. This investigation was confined to a study of fourth- and sixth-grade children enrolled in four white elementary schools in Clarke County, Georgia. The schools were chosen to represent a cross section of the school population of this county school system. It is suggested that the interpretation of results ot this study be considered in relation to the specific population investigated. Cultural differences may have had considerable influence on the results. For other school situations, the conclusions of this study may serve as hypotheses for continued study.

3. Methodological limitation. This study of children's self concepts was further limited to those aspects of the self concept which could be measured by the specific instruments used. Pencil and paper tests at their best reveal only what the individual is able and willing to communicate. The self concept, then, as relates to this study is simply the description which the child chose to reveal to the investigators. However, the instruments selected for use measured percepts significant to children at the fourth- and sixth-grade levels.

4. Semantic limitation. This limitation is closely related to methodology. The self is really not definable in words; it is only partially available to awareness and verbal communication. It is recognized that in this complex area of human behavior fourth- and sixth-grade pupils may have experienced difficulty in revealing factually what they in reality felt and believed about themselves. This limitation imposed by communication difficulties made precision in experimentation more difficult.

5. Limitations imposed by maturation. Methodological and semantic limitations may be applicable in investigations at any period of human development since instruments are inadequate and communications are imperfect. The limitations are further compounded in this study by the fact that the self is in process of becoming or maturing and this process itself may impose limitations.

V. ORGANIZATION OF STUDY

The first chapter of the document presents a brief introduction to the study, the statement of the problem, the hypotheses, the basic assumptions underlying the research, and the limitations. Chapter II gives a comprehensive review of the more pertinent studies which have been concerned with the self concept. Chapter III includes a description of the instruments employed in the study, definitions of terms used, description of pupil population and school setting, and a discussion of the research procedures. Chapter IV presents the findings related to hypotheses 1 through 17, which employ the use of statistical procedures. Chapter V presents selected case histories of pupils with low self-high teacher and high self-low teacher status, along with a discussion of pertinent findings related to these groups. Chapter VI gives a summary of the findings along with conclusions and implications.

CHAPTER II

REVIEW OF RELATED LITERATURE

The words self concept have come into use by psychologists with reference to the self as conceived of by the individual himself. Early in the history of American psychology, considerable interest was manifested in the inner self. To the introspectionists the inner self was the central concept in psychology. William James (39) gave much attention to this concept, devoting one chapter in his Psychology to the development of the self. With the declining influence of the introspectionists less attention was given to the operation of the inner self. The attempts to make psychology an objective science did not lead to a renewed emphasis upon the self. Thus theories and studies bearing on the self received little attention during the second, third, and fourth decades.

Beginning near the middle of the twentieth century there evolved a renewed interest in the self. This may be noted in the writings of Lecky (43), Snygg and Combs (64), Rogers (58), and Maslow (49). These writings were largely concerned with the role of the conscious self, sometimes referred to as the phenomenal self. Freud (27) and other psychoanalytical students gave attention to the nonphenomenal constructs, as in the unconscious self. Our main concern is with the conscious or phenomenal self. Anderson (5), suggests that everyone has a concept of himself as a unique person or self different from every other self.

I. DEFINITION AND INTERPRETATION

Before we examine the research bearing on self concepts, it is important to examine what is meant by the words. Several relatively recent definitions should be helpful.

"The self concept may be thought of as a _set of expectancies, plus evaluations of the areas of behaviors with reference to which these expectancies are held_." (50, p. 174). Jersild (41, p.9) states: "The self is a composite of thoughts and feelings which constitute a person's awareness of his individual existence, his conception of who and what he is." Self concept is described by Perkins (54) as those perceptions, beliefs, feelings, attitudes, and values which the individual views as describing himself.

The concept of the self is the highest or supreme value of the individual, and therefore the basic or primary datum for the understanding of human behavior. The behavior of the individual is primarily determined by and pertinent to his phenomenal field and, in particular, that aspect of the field which is the individual's concept of himself. Parents, educators, and psychologists are ever seeking to understand the "self," the individual, his thinking and his behavior in an effort to utilize more effectively the assets of the well adjusted child and to redirect the negative attitudes of the behavior problem child by providing more realistic and attainable goals.

Although the basic core of personality seems to be stable throughout life, self concepts are not (14). They are affected by growth and experience.

II. THE MEASUREMENT OF SELF CONCEPTS

The self concept consists of an organized perceptual pattern of the self along with certain values attached to these concepts. Various attempts have been made to assign values to these concepts. Concerning the assignment of values, McCandless (50, p. 177) states: "Measurements of self concepts vary, then, along the dimension of how values are attached: some research workers use general social norms; others use the personal norms of the people whom they include in the study." In most attempts at measurement, a number of terms, traits, or characteristics are presented to the subjects.

Some research workers use adjectives such as brave, honest, reliable and ask the subject to evaluate how these terms apply to them (45). A number of investigators have made use of descriptive statements. In a study by Becker (9) using descriptive statements, the subjects indicated for each statement whether "This is very much like me;" "This is a little bit like me;" or "This is not at all like me." Both positive and negative types of statements were used. Carlson (20) also used short self-descriptive statements, such as: "It's hard to make friends with people I like best;" and "I get nervous when I talk to my teachers." The subject checks or makes a rating of how the characteristic applies to him.

Still another method is to make use of essays. The subject is asked to describe himself as he answers questions, such as "Who am I?" Another method is referred to as the Q-sort procedure. A large number of adjectives are given the subject on cards. He is required to arrange these according to a pre-planned procedure. For example, he may be required to place ten of a group of cards in a stack "most like me," ten in a stack "least like me," and a certain number in each of several other stacks.

In attempts to arrive at more objective methods some investigators have used projective techniques. The Thematic Apperception Test (22), the Rorschach Inkblot Test (22;11), the Michigan Picture Test (6), and related tests have been used largely as measures of personal adjustments. Some other types of tests that have been used are sentence completion tests, word association tests, and different free drawing tests.

III. DEVELOPMENT OF THE SELF CONCEPT

A child is not born with a concept of himself. He first begins to form this concept when he realizes there are other beings in the world with him; but even before this his first reaction to the world is "I am hungry, or cold, or wet." Certainly, children are not born with any attitudes or value system. Their original images of themselves are formed in the family circle. They develop these notions of who they are in relation to the behavior of the people around them, particularly through the ways in which their behavior is received by the adults who are important to them, those people who are significant to them (29). If the infant spends most of his waking hours being comfortable and if the responses to his cries of discomfort are fairly immediate, he begins to develop the notion that the world is a pretty good place and that he must be a fairly good person to be kept this comfortable. If, however, little is done to meet his needs, if long periods of discomfort persist despite all his efforts, then he begins to develop the feeling that the world is "not so hot," that he doesn't rate, and that he has little control over things.

Shoben (61) found, from the general literature and from clinical and experimental studies, that the family has an influence on the child that reverberates throughout his life span, sharing in the formation of his personality and the behavior reflected from it. The child's first idea of himself is a reflection of the parent's idea of him, and this is significantly related to the adjustment of the child. Silver (62) noted that the level and stability of self concept rating is significantly associated with paternal acceptance and to a lesser degree with maternal acceptance. Tatum (67) concluded that there is a significant relationship between what appears to be the parents' acceptance of their children and the way children regard themselves and are regarded by their peers. The self develops out of social definition of the individual's relationship to the world about him. As other people important in his life define and evaluate the person, so will he come to define and evaluate himself.

The perceptions of forty fourth- and sixth-grade children were investigated with respect to attitudes of acceptance and rejection of parents by means of structured thematic and story completion materials and by children's ratings of parent attitudes and behavior (8). It was hypothesized that self-perceptions of rejection and extrinsic evaluation would be related to a more omnipotently conceived self concept, to higher levels of ego aspiration and goal frustration tolerance, to greater independence from parents, and to less advanced levels of personality maturity. This hypothesis was confirmed in part for subjects who perceived themselves as extrinsically valued by parents, but not for those who perceived themselves as rejected. Subjects who perceived themselves as extrinsically valued tended to conceive of their capacities in more omnipotent terms, showed greater evidence of goal tenacity following cumulative, experimentally induced failure, disagreed more with perceived parent opinion, and were rated as less executively independent.

Koppitz (42) found that if a child has learned to accept himself as worthy of love and consideration because others treat him with affection and respect, then he will also feel friendly and loving toward others. If, however, he has come to think of himself as inferior or unlovable because his parents have treated him with rejection and punishment, then he will tend to feel hostile toward others and will consider them just as unworthy of love as he considers himself. These findings suggest that parental personalities and attitudes have significant effects on children's self-evaluation and on their interpersonal attitudes. Helper (33) related self concepts to learning theory involving reinforcement. His findings indicate that for boys, patterning after the father in self concept was at least in part a result of reinforcement received from the father in the form of praise.

Miyamoto and Dornbusch (52, p. 403) conclude: "Our findings indicate that the response, or at least the attitude, of others is related to self conception; but they also indicate that the subjects' perception of that response is even more closely related." They also point out that the individual's self conception is more closely related to his estimate of the generalized attitude toward him than to the perceived attitude of the members of a particular group.

In a study to determine the degree of acceptance parents felt toward their children and to compare it with the ranked scores of their children in self-acceptance, academic efficiency, and peer ratings, Tatum (67) interviewed the parents of forty-nine fourth-grade children. The basic hypotheses of this study were: If parents show a high degree of acceptance for their children, the children will (1) score high on self-acceptance, (2) score high on academic efficiency, (3) be rated high by their peers. Hypotheses 1 and 3 were supported by a positive correlation at greater than the .01 level of statistical significance. Hypothesis 2 was not supported. There was a positive relationship between what appears to be parent acceptance of their children and the way children regard themselves and are regarded by their peers. There is a negative but not statistically significant relationship between what appears to be parent acceptance of their children and children's academic efficiency as determined in this study.

Perkins (54) found that teachers' perceptions of children's self concepts are in general positively and significantly related to these children's expressed self concepts. The self concept can be used in education (a) as a psychological construct which enables teachers, counselors, parents and others to achieve with training deeper understanding and insights into the behavior and development of children, and (b) as a vital and important aspect of learning and development which the school through its educational process seeks to promote and foster in every child.

By the time the child has reached the fourth- and sixth-grade in school the concept he has of himself has, to him, become the actual person. It is essential to the child that he protect this "self" at any cost. Snygg and Combs (64) point out the necessity for the individual to protect the self when threatened. Lecky (43) held that preserving one's perception of one's self intact is the prime motive in all behavior. Self consistency is necessary in order to maintain or preserve the identity of the self. A person who believes that his "self" is weak, bad, or stupid will adhere to all perceptions that bolster this picture of himself and refuse to see or accept any perceptions that suggest he is good, strong, or clever. Lecky proceeds to apply his theory of self consistency to learning difficulties. According to Lecky, the child not seen as bright by his parents, who has, therefore, come to see himself as stupid or incapable of learning, holds to this concept when he goes to school. In school such a child may seem free to explore, to follow where his curiosity leads, and to learn new things. But in reality, according to Lecky's theory, he is not free; he is restrained by the picture he has of himself as a nonlearner. He must be faithful to this picture of himself or be threatened with loss of selfhood (68).

IV. DISCREPANCY BETWEEN THE SELF AND THE IDEAL SELF

In a study by Hawk (32), it was found that boys and girls who saw themselves essentially as they would like to be (ideal self) expressed a higher degree of self confidence and less uncertainty about themselves than did the subjects whose ego discrepancies were medium and high. Those subjects whose ego discrepancies were medium and high described themselves in a manner that made them similar to one another.

Using adults as subjects Lepine and Chodorkoff (44) found that the more an individual tended to express feelings of adequacy the greater was the correspondence between his perceived and ideal self. Chodorkoff (22) found a significant curvilinear relationship between adjustment and degree of correspondence between the individual's perceived and ideal self.

McCandless (50, p. 193) summarizes recent studies of the discrepancy between the perceived self and the ideal self as follows: "..... people who are highly critical - that is, who show a large discrepancy between the way they actually see themselves and the way they would ideally like to be - are less well adjusted than those who are at least moderately satisfied with themselves."

V. DISCREPANCY BETWEEN SELF-ESTIMATES AND OTHER-ESTIMATES

The question may be raised: How closely do self-ratings coincide with ratings of others? A number of investigators have studied this question, and a wide age-range of subjects have been used. Although positive correlations have been obtained, they have, in general, been low. Amatora (3) gathered data on 200 boys and 200 girls, using her Child Personality Scale. The correlations varied for boys from .67 for courtesy to .10 for cooperation; for girls from .62 for interests to .11 for sportsmanship. Amatora (3, p.124) states: "When girls are rating themselves on nervousness and on good sportsmanship they differ from the judgments of their classmates. Boys' self evaluation does not agree with that of their classmates on disposition, sense of humor, and cooperation."

Holt (36) related self-ratings to "expert" ratings by a diagnostic council composed of psychologists, psychiatrists and other social scientists.

The subjects of the study by Webb (69) included 31 members of a Jewish fraternity at Washington University. The traits rated were "Personal Charm," "Security," "Intelligence," "Jewish Appearance," and "Acceptance of Jewish Faith." "Personal over- and under-evaluation was, as a group, related to the acceptability of a particular trait - a consistent tendency for over-evaluation was obtained." (69, p.307). Calvin and Holtzman (19) used as subjects male college students. These students were given the Minnesota Multiphasic Inventory. They also ranked each other on traits of leadership, tolerance, adjustment, drive, tactfulness, and social understanding. The results, while not conclusive, provided some validity for the self-ratings on the Inventory. Silver (62) noted that the level and stability of the self concept is significantly associated with perceived measures of peer acceptance but not with actual measures of peer acceptance or with accuracy of social perception.

Self-evaluations by pupils have been widely used by many teachers during the past decade. Russell (60, pp. 570-571) summarizes and evaluates published and unpublished research on this problem during the decade prior to 1953. Concerning his review he states: "It indicates further that the periodic evaluations of elementary school children, such as those sometimes used in reports to parents, bear little relation to the evaluations of peers and teachers in regard to both personality adjustments and academic achievements."

Russell (60) summarized several early or unpublished studies of children dealing with self-evaluations. These studies showed that children tended to overestimate their standing on a variety of achievement and personality tests. In a recent study Coopersmith (24) obtained ratings from teachers of sixth-grade children, and also obtained self concept ratings from the pupils. There was general agreement, although in some cases disagreements occurred. Studies of Amatora (3), Green (30), Wylie (70), and Webb (69) furnish evidence that the accuracy of self-evaluations is a function of the variables being evaluated. It seems likely that those traits on which the subject has the most objective evidence, such as size or strength, on which he can compare himself with others he makes a more accurate estimate than on traits where little or no evidence is available. Wylie (71, p. 315-316) has presented a good summary of descriptive facts about the subject's insight based upon self-evaluations.

> The typical but not unanimous finding is that Ss' self-rating show low but significant correlations with the ratings which Ss receive from others. This seems to hold true for a wide variety of traits and persons. Probably the correlations for some traits are higher than for other traits. Before definitive, clearly interpretable statements can be made about the degree of correspondence between self-ratings received from others, further research is necessary in which certain methodological difficulties are eliminated.

There is considerable evidence that self-overestimation is more common than is self-underestimation. This holds true for a wide variety of traits and persons. Here too further research is needed before more definitive detailed statements can be made concerning the conditions of which overestimation is a function. For example, the roles of subject variables and of the objectivity and salience of traits remain to be explored in controlled research designs.

There is some limited evidence to suggest that there are consistent individual differences in the tendency toward overestimation, underestimation, or accurate estimation across a variety of traits.

VI. SELF ACCEPTANCE AND ACCEPTANCE OF OTHERS

Perhaps one of the chief distinctions between persons who will and those who will not experience difficulty with authority in school, home, and the courts of law in their formative and later years lies in the extent to which a socially acceptable self image has been developed. Reckless (56) made an analysis and comparison of "insulated" and potentially delinquent children. This study revealed significant differences in the self images of members in the two groups. The "insulated" boys, unlike the potentially delinquent, did not ever expect to have to be taken to juvenile court or jail. They indicated a desire to avoid trouble at all costs, and they had rarely engaged in any form of theft, and they had few if any friends who had been in trouble with the law. One of the preconditions of law-abiding or delinquent conduct is to be found in the concept of self and others that one has acquired in his primary group relationships. Concept of self and others is the differential response component that helps to explain why some succumb and others do not, why some gravitate toward socially unacceptable patterns of behavior and others veer away from them.

Studies reported by Berger (10), Marshall (47), Omwake (53), Phillips (55), Reeder (57) and others support the hypothesis that acceptance of self is positively related to acceptance of others. An individual who holds negative feelings toward himself tends to hold negative feelings toward other people in general. The constant fault-finder harbors negative self attitudes (55). And, as his feelings about himself change to objective or positive, feelings about others change in a similar direction (65). Those who seem to like and respect themselves are inclined to be positive, at least in their attitudes toward others, and to be generally less critical of those around them. Expressed attitudes of self-acceptance are firmly and positively related to expressed attitudes of acceptance of others (26). Horney (37) has stated that the person who does not believe himself lovable is unable to love others. According to Fromm (28), we should love ourselves, for self-love and the love of others go hand in hand. Moreover, Fromm proposes that a failure to love the self is accompanied by a basic hostility toward others which arises out of the suppression of the individual's spontaneity or of his "real self."

VII. THE SELF CONCEPT AND MENTAL HEALTH

The manner in which one perceives himself has been regarded as one indicator of the degree of mental health he demonstrates or possesses. The self concept constitutes the core of personality organization. A logical consequence of such a theory is the assumption that personal adjustment problems occur as the result of threat to the integrity of one's self concept. It has been observed that a basic threat to one's self concept occurs when he feels that he is being evaluated by others in a manner which is at variance with his concept of himself. It seems reasonable also that one may feel threatened when he finds his self concept out of focus with other self-related concepts such as the kind of person he would like to be (ideal-self), the manner in which he would like others to think of him (social self), and perhaps the way in which he thinks of the "ordinary person." This kind of thinking suggests that one's strivings may represent an attempt on the part of the organism to maintain some sort of harmonious relationship among the various self-related concepts (34). Rogers, Kell, and McNeil (59) found that in predicting the behavior of a problem adolescent, the extent to which he faces and accepts himself and has a realistic view of himself and reality provides the best estimate of his future adjustment. They pointed out that the element which above all others should be the most subject to normal change or planned alteration, the individual's acceptance of himself and of reality, is also the most important determiner of his future behavior. The most powerful determinant would appear to lie in the attitudes of the person himself. They found a correlation between self-insight and later adjustment to be .84 when studying a group of delinquent children. The relationship existing among one's attitudes toward himself (self concept), and toward the self he would like to be (ideal self), and toward others (social self), have important implications for the adaptation of the individual. Disparities among these attitudes often accompany unsatisfying public and private adjustments, whereas to see in oneself essentially the person one aspires to be (ideal self), and to accept this self on a par with the rest of mankind (social self), approaches some paradigm of mental health (26).

The mentally healthy person should:

1. Perceive himself in a positive fashion.
2. Demonstrate a reasonably clear, certain, and well-differentiated concept of self.
3. Be frank and honest in admitting his negative characteristics.

4. Demonstrate an acceptable degree of consistency between and within the various divisions of the self concept. (7).

McQuitty (51) contends that psychological adjustment exists when all aspects of the self (a part of reality) can be accepted into consciousness. The adequate personality is one in whom the self is well integrated. He can readily accept into his organized conscious concept of self all his interpretations of reality, including, of course, perceptions of himself.

Maximum psychological adjustment exists when all of an individual's subjective opinions of himself are entirely acceptable to him. The idea that it is good to see the self realistically and objectively is one of the most common in the mental health literature.

Healthy individuals find it possible to accept themselves and their own natures without chagrin or complaint, for that matter, even without thinking about the matter very much. They can accept their own human nature with all its discrepancies from the ideal image without feeling real concern. This does not mean to say that they are self-satisfied. What is meant rather is that they can take the frailties and sins, weaknesses and evils of human nature in the same unquestioning spirit that one takes or accepts the characteristics of nature. A healthy person knows who he is and does not feel basic doubts about his inner identity. The youth who is not sure of his identity shies away from interpersonal intimacy; but the surer he becomes of himself the more he seeks it in the form of friendship, combat, leadership, love and inspiration (38).

The subject who evaluates himself unfavorably tends to react in the following ways: he feels that he is evaluated unfavorably by others; he feels misperceived by others; he changes markedly from time to time concerning what he thinks other people think of him; and he changes markedly from time to time concerning what he would like to be. He feels anxious, irritable, unhappy, and inadequate. Subjects in the low self ideal congruence group are characterized by a lack of persistence in work habits and by feelings of oppression. They are more likely to feel rejected by both family and friends and tend to react to this by withdrawing within themselves. For this reason, their fantasy life seems to be more active than that of the high self ideal congruence group. Subjects of the low self ideal congruence group show much more uneasiness in social situations. They tend to stay in the background and to avoid contacts calling for poise and diplomacy, for they are easily hurt and are aware of their proneness to quarrel. They tend to dislike school, and their negative attitudes make for difficulties in their relationships with teachers, fellow students, and members of the opposite sex (31).

Similarly, it is not surprising that the subject who evaluates himself favorably feels evaluated favorably by others, feels understood by others, and also has rather stable ideas about what he is, what he believes others think of him, and what he would like to be (63). The individual with a stable self concept is the individual who accepts himself, who values himself highly, who feels secure about himself. When he asks of himself the question "Who am I?" he is able to answer himself in a confident manner and he is generally pleased with his answer (17). He feels secure, friendly, happy, and adequate.

There is general agreement that a negative self concept indicates stress and tension. There is the possibility, however, that a positive concept can represent either a reasonably well adjusted individual or a highly defensive one (40). It has been shown that individuals describing themselves as very close to their ego ideals tend to deny and suppress threatening features of themselves and cannot be considered mature and healthy. Block (13) says: "We speculate that a certain resiliency or potential for oscillation is required in order for a personality system to cope with the stresses and strains of life."

Any value entering this system (of organization of self valuation) which is inconsistent with the individual's evaluation of himself cannot be assimilated: it meets with resistance and is likely, unless the general reorganization occurs, to be rejected (43). The need for self-acceptance arises because of a more fundamental need to maintain or to restore self-esteem. Anything belittling to the self is to be avoided (35). The maladjusted subject may appear well adjusted because of his defense mechanism (25).

A number of studies have suggested that the development of high self-acceptance may be a method of responding to threat and that high self-acceptance often serves a defensive function in the personality (16).

McCandless concludes (50, p. 204):

> In studies where the self concept was compared with ratings of the individual made by others, those who were more "accurate" in their self-perceptions received scores on personality tests indicating good adjustment, and less often manifested delinquent tendencies. ......Children who are inaccurate in their self concepts, in which they regard themselves poorly but are rated by their teachers as successful are quite popular and academically successful, yet very critical.

VIII. PHENOMENAL SELF AND ACADEMIC ABILITY

Substantial evidence indicates a relationship between self concept and school achievement. In studying the relationship of self concept to achievement in reading of fifth-grade children, Lumpkin (46) found indices of the existence of a variety of significant relationships between pupil's self concepts, as revealed in an analysis of the data secured, and achievement in reading. Overachievers in reading demonstrated superior performance to a degree statistically significant beyond the one per cent level of confidence on a variety of measures, including accuracy in oral reading, vocabulary, and comprehension. Significantly higher achievement was noted in arithmetic, language, and work-study skills, but not to the same degree as that observed in reading. As measured by the instruments employed, overachievers revealed significantly more positive self concepts, revealed high levels of adjustment, and saw themselves as liking reading. These children were viewed positively by both teachers and peers.

Underachievers in reading made significantly lower scores on measures of academic achievement. They manifested a predominantly negative perception of self, a desire to be different from the self as seen, and to a statistically significant extent, they expressed feelings of conflict more frequently. They were viewed by teachers as manifesting high problem tendency.

It is evident from these findings that, in the population studied and in relation to the instruments used, an overachiever in reading is viewed positively by himself, his teachers, and his peers. This outcome confirms current opinion that achievement stems from intrinsic motivation, as well as from the environmental responses to this achievement.

Performance of the underachievers in reading on the instruments utilized shows that the life experiences of these children have contributed to negative feelings concerning themselves and their world which are manifested in lack of achievement. It can be stated with confidence that in the group studied the concept of self which the individual accepts influences his behavior qualitatively and may determine the direction and degree of his expression in academic work as well as in his social relationships.

Bodwin (15) did a study on the relationship between immature self concept and certain educational disabilities of children in grades three through six. He found that (1) a positive and very significant relationship existed between immature self concept and reading disability. The correlations obtained on this part of the investigators were .72 on the third grade level and .62 on the sixth grade level, both of which were significant on the one per cent level of confidence. (2) A positive and very significant relationship existed between immature self concept and arithmetic disability. The correlations obtained on this part of the investigation were .78 on the third-grade level and .68 on the sixth, both significant on the one per cent level of confidence. (3) The relationship between immature self concept and reading and arithmetic disability was greater than the relationship between immature self concept and disability in other school subjects. Correlations between immature self concept and median achievement test scores was .60. (4) The relationship between immature self concept and reading disability was somewhat less, although not significantly so, than immature self concept and arithmetic disability. (5) The relationship between immature self concept and reading and arithmetic disabilities was greater on the third-grade level than the sixth. This indicates the presence of age differences in these relationships.

In studying the influence on academic achievement of the actual self concept and the ideal self concept of ninth-grade children, Chickering (21) observed that (1) there is an inverse relationship between academic achievement and the discrepancy between the actual and ideal self concept. (2) Underachievers apply certain actual self-perceptions to themselves to a greater degree than do overachievers. (3) Overachievers apply certain actual self-perceptions to themselves to a greater degree than do underachievers. He also found that the ideal self-perceptions of underachievers and overachievers are more similar than are their actual self-perceptions, and underachievers apply to themselves items seen as LEAST self-descriptive by the general population, to a greater degree than do overachievers, while overachievers apply to themselves items seen as MOST self-descriptive by the general population, to a greater degree than do underachievers. There was no evidence which indicated a stable relationship between self-discrepancy and effort in school or school absence. Neither was there evidence that underachievers differ from overachievers in ideal self-perceptions. The results instead suggested that the relationship between academic achievement and the discrepancy between the actual and ideal self concepts, pertain primarily to differences in the actual self concept.

Academic grade-point averages of children in grades three through eleven were found by Bruck (18) to be influenced by self concept in relation to differences of age and sex. The conclusions were: (1) A positive and significant relationship exists between self concept and grade-point average on all grade levels ranging from the one to the five per cent level of confidence. (2) There are significant age differences in the relationship between self concept and grade-point achievement when one compares early elementary and senior high students and late elementary and senior high students, but there is no significant age difference in this relationship between early and late elementary school subjects. (3) There are significant sex differences when one compares early elementary pupils and also high school pupils but there is no significant sex difference in this relationship when one compares later elementary school pupils.

Jersild (41, pp. 19-20) makes this observation:

> Whenever a pupil is in a situation where he might learn something which goes against a view of himself to which he is strongly committed, his defenses will come into play, even if such learning might potentially improve his way of life. For this reason, learning something that really makes a difference to oneself, in the sense that there is a revision or change in the self concept, is likely to be painful.

More broadly speaking, the pupil is not actually protecting something unhealthy as such; he is trying to safeguard his picture of himself, his self concept, the illusions concerning himself which he has built and which give him much trouble. The typical low achiever is a picture of a child who sees himself as inadequate, helpless, and perhaps worthless. He sees himself, not as able to achieve or act constructively for his own enjoyment or benefit, but as having to be on the defensive in order to maintain his integrity. He may simulate indifference or bravado; he may fight blindly and hopelessly, dig in his heels stubbornly, or withdraw into daydreams or unreachable passivity. Where he may see himself as threatened and helpless, in the one area of academic achievement he can be the winner. No one can make him learn anything (68).

According to many psychologists, a child sees himself as he is seen by the "significant" people in his life. During his earliest years these are his mother and father. When he goes to school, they may include the teachers with whom he comes in contact, in particular, his classroom teacher. If she is to help free him from his distorted picture of himself, she must first be "significant" to him. This implies a relationship, and if it is to be helpful, a satisfying relationship. She must be able to see the child as a more adequate person than others have seen him before. It is necessary to find the good in him and to show it to him (68).

IX. RELATION OF SELF CONCEPTS TO ANXIETIES, INTERESTS AND WISHES

Studies show that self concepts are related to anxieties, interests and wishes. Coopersmith (24) used the anxiety scale with fifth- and sixth-grade children. He noted that children with high self-esteem were significantly less anxious than those with low self-esteem.

Sutton-Smith and Rosenberg (66) sought to compare the play preferences of highly anxious boys and girls in grades four, five, and six by use of the Terman Play Inventory. It was hypothesized that for highly anxious children each sex would show a greater preference for the games of the opposite sex than found in the total population. The results partly supported this hypothesis and led to the interpretation that the measurement of anxiety on the C.M.A.S. is related to variables in the area of sex-role identification. Further interpretation of the game preferences led to the conclusion that game choices of highly anxious boys were not only feminine, they were also immature, and that some of the game choices of highly anxious girls were both masculine and above average in maturity level.

An individual's interests are indicative of and influenced by his concept of himself. Alford (2) administered interest sheets to

3,348 boys and girls in grades four, five, and six. In this study over thirty per cent of the boys indicated interest in jets, airplanes, motors, and electronics, followed by slightly less preference shown for space flight, animal life, astronomy, and earth's surface. Over thirty per cent of the girls, on the other hand, indicated high interest in astronomy and in animal and plant life. Slightly fewer girls showed interest in T.V., radio, and radar, in the earth and its surface, in planets, and in weather.

There were some variations in interests between grade levels. More girls in the fifth and sixth grades indicated an interest in the human body and in health and disease than did other pupils. More boys of the fifth and sixth grades indicated interest in the solar system, in rocks and minerals, and in motors than was indicated by boys of the fourth grade. More boys and girls in the rural and town areas evidenced interest in science than did those in city schools. Marten (48) found boys showed stronger interests in more things than did girls. Blocher (12) found that the claimed vocational interests of an adolescent boy may be related to his perceptions of self, ideal-self, and occupational stereotypes. Ambinder (4) found that leaders in the classroom tended to show higher interest maturity.

Wishes, also, are goal-directed and express values. They indicate areas of dissatisfaction and levels of aspiration in the life span of the wisher. They constitute an as yet insufficiently exploited resource for knowledge of child and adolescent development. Cobb (23) studied the role-wishes and general wishes of children and adolescents. The analysis of his data shows a high frequency of wishes for material objects and possessions, decreasing with age and being replaced by wishes for more general and inclusive benefits for self and others; a tendency for wishes to be predominantly extrovert rather than introvert, with a low incidence of wishes relating to personal short-comings; and a tendency for wishes to be concrete and realistic rather than abstract and unrealistic, but becoming more general with increasing age. Sex differences have been found indicating a higher interest among boys in personal achievement and possessions, and among girls in social and family relationships.

Comparing the distributions by chi-square yielded highly significant sex and grade differences in the frequencies of specific categories. Boys consistently wished for personal achievement and possessions (in this case, to be rich) more frequently than did girls; while girls' wishes consistently fell into the personal, social, physical appearance and identity categories more frequently than those of the boys. In all grade-groups and over-all, girls exceeded boys in wishes relating to family, and, in junior high and high school and over-all in personal-social wishes. Boys exceeded girls in elementary and junior high and over-all in wishes relating to personal achievement and, in all grade-groups in wishes for possessions.

CHAPTER III

DESCRIPTION OF PUPIL SAMPLES, INSTRUMENTS, PROCEDURES, AND TERMS EMPLOYED

The purpose of this study was to measure and analyze the self concepts of selected fourth- and sixth-grade children. Fourth- and sixth-grade children were chosen under the assumption that this is a crucial period in the lives of children, a period of transition from dependence on parents and teachers to independence and growing maturity, a period when interests, personalities, and self concepts are developing and crystallizing.

I PUPIL POPULATION AND SAMPLES

The Clarke County School District was chosen as a fairly typical sample of school districts of Georgia and perhaps of the Southeastern United States. Clarke County is 125 square miles in area, and had an estimated 1962 population of 50,000. The Clarke County School District came into being by permissive legislation and approval by the voters effective January 1, 1956. The organization of this school district represented a merger of the Athens Public Schools and the Clarke County Public Schools. The Clarke County School District includes 18 schools which in 1962 had a total enrollment of approximately 9,000 pupils. From the 18 schools in the system, four schools were chosen to represent a cross section of the population.

All of the pupils present on a specific day in grades four and six of the four schools chosen were administered three group pencil and paper tests: *Self Concept Scale*, *Child Self Description Scale*, and *Children's Manifest Anxiety Scale*. On the following day, the same children were administered the interest inventory, *What I Like to Do*. The number of pupils tested by group tests in the three schools was 605.

From the 605 pupils tested by group tests, 271 were administered the *Michigan Picture Test* individually. These pupils included ten girls and ten boys, selected at random, from each fourth- and sixth-grade class in the schools. Any pupils recommended by the teachers of the classes were also tested in addition to the ten girls and ten boys randomly selected from the classes.

For the most part, the groups investigated most fully were those on whom complete data were available. These groups were designated as follows: Group A, fourth-grade boys, 65; Group B, fourth-grade girls, 60; Group C, sixth-grade boys, 76; Group D, sixth-grade girls, 70.

In the analysis of the *Child Self Description Scale*, the total group of sixth-grade boys and girls (Groups C and D) were employed in the chi-square test of independence. Inspection of frequency distributions indicated clearly that the smaller sample was distributed in the same manner; thus additional computations were not employed.

II DESCRIPTION OF INSTRUMENTS

The *Self Concept Scale* adapted for use in this study was designed to measure the way the subject says he thinks of himself. Bills, Vance, and McLean (72) developed an *Index of Adjustment and Values* to measure the discrepancy between the self concept and the ideal self. The *Index* consisted of 49 traits which appear to measure the values of a person, his acceptance of self, and the discrepancy which exists between his concept of self and his concept of his ideal self. Corrected split-half reliability coefficients of .91 and .88 for self and ideal self respectively were obtained for a group of 237 college students. Test-retest reliability coefficients over a period of six weeks for a group of 175 students were .83 and .87. These studies indicated that *The Index of Adjustment and Values* is a reliable measure of adjustment and values.

The *Index of Adjustment and Values* measure of self concept was developed for use with adults. Lipsitt adapted the *Index* for use with children (43). Twenty-two adjectives were used. The subjects were instructed to check on a five-point scale (not at all, not very often, some of the time, most of the time, and all of the time) how descriptive the item was of him. Later the same subjects checked the adjectives on the five-point scale for an ideal self (how he would like to be).

For this study nineteen of these adjectives were used and eleven added, making a total of thirty adjectives. Twenty-five of the adjectives indicated positive qualities (friendly, obedient, honest, etc.), five adjectives were considered negative (lazy, mean, selfish, jealous, and bashful) (see Appendix). The subjects were instructed to indicate on a three-point scale (nearly always, about one-half the time, or just now and then) the degree to which each adjective was descriptive of him. After going through the thirty adjectives for the self as he sees himself, the subject was then instructed to repeat the test using the same scale to describe the self he would like to be (ideal self). A score of three, two, or one points was given each item on the scale, reversing the values for the negative adjectives.

The *Child's Self Description Scale* consists of 95 items organized into 19 pentads or sets of five items each. The items of the *Scale* were selected to describe feelings and preferences toward representative activities and situations in a child's life. The first eight pentads presented choices the pupils were required to make relative to school subjects most and least liked, things one would most and least like to be when one is older, things most and least important, and descriptive items most and least like the pupil (see Appendix).

In the development of the *Scale* 27 sentences were selected by a majority of judges as implying social orientation, and 28 sentences were judged as implying personal orientation. Seven or more judges agreed on 76 per cent of the decisions. Each of the 19 sets of items included at least one "social" and one "personal" statement.

Children's self descriptions were scored for personal-social orientation. The personal-social score was obtained by subtracting the social orientation choices from the personal orientation choices and adding this score to a base of 20. Thus, scores above 20 were suggestive of personal orientation while scores below 20 were indicative of social orientation.

The *Children's Manifest Anxiety Scale* used in this study was an adaptation of *Taylor's Personality Scale of Manifest Anxiety*, which was designed to measure anxiety in adults (79). McCandless and Castaneda adapted the adult scale for use with fourth-, fifth-, and sixth-grade children (77).

This *Scale* consists of 53 items or sentences such as "I blush easily," "I get nervous when someone watches me work." The subjects are instructed to respond to each item by encircling "yes" or "no" depending upon whether or not they consider the item descriptive of them (see Appendix).

A number of studies have been conducted bearing on the validity of the *Scale*. McCandless and Castaneda found that the more anxious youngsters tended to be less popular and to score lower on self concepts than those less anxious. Using the Kuder-Richardson formula, Kitano reported a reliability coefficient of .86 for the *Children's Manifest Anxiety Scale* (76). Concerning the validity of the *Scale* Kitano stated: "It was concluded that the finding of significant differences between adjustment and regular class boys on the *Children's Manifest Scale* and the *Modified Revised California Inventory* provides evidence of their validity." (76).

What I Like to Do is an interest inventory developed for use in grades four through seven (79). It has been standardized on a national basis by grade and sex. Both in-school and out-of-school activity preferences are surveyed, and an interest pattern for each child may be secured in eight significant areas: art, music, social studies, active play, quiet play, manual arts, home arts, and science.

There are two principal purposes of the *What I Like to Do* inventory: (1) to provide a workable means of identifying pupil interests so they may be utilized in guidance and instruction; (2) to provide a research instrument for the study of children's interests.

The *What I Like to Do* inventory was administered to a national sample of pupils selected for the purpose of controlling the following variables: grade, sex, urban-rural designation, socio-economic status, and geographic area. Percentile norms for grades four, five, and six were obtained for both boys and girls. Significant differences were found between the interest patterns of boys and girls at the different grade levels. These findings, along with the nature of intercorrelations obtained (see Table 1) furnish some evidence for the validity of this test as a measure of interest patterns.

A sample of 800 cases from the national norm sample was selected for studying the reliability of each of the eight interest areas. Coefficients of reliability were computed for both boys and girls and are presented in Table 2. These coefficients, ranging from .702 to .972 indicated a satisfactory reliability of the test. Data on both fourth- and fifth-grade pupils were used in an earlier tryout for studying readability. Reading problems varied from grade to grade although they were as expected more numerous among fourth-grade pupils.

The _California_ _Achievement_ _Tests_ were developed for facilitating evaluation, educational measurement, and diagnosis (80). The items of the _Tests_ have been selected to measure many of the subject-matter objectives of the school curriculum. Both the Upper Primary and the Elementary battery are composed of tests of reading vocabulary, reading comprehension, arithmetic reasoning, arithmetic fundamentals, mechanics of English, and spelling.

Two principal scores are reported in each of the basic areas of reading, language, and arithmetic from grades one through fourteen. Performance is summarized in profile form; grade placement, percentile, and age norms are provided.

Table 1

Intercorrelations Among the Eight Interest Scores
(G) Girls: N=398 (B) Boys: N=402

		Art	Music	Social Studies	Active Play	Quiet Play	Manual Arts	Home Arts	Science
Art	G	....	.616	.568	.460	.567	.511	.510	.484
	B	....	.573	.555	.462	.590	.607	.547	.489
Music	G	.616	....	.510	.444	.526	.388	.489	.401
	B	.573	....	.523	.336	.471	.388	.483	.432
Social Studies	G	.568	.510	....	.366	.501	.405	.460	.682
	B	.555	.523	....	.419	.575	.482	.462	.758
Active Play	G	.460	.444	.366	....	.652	.598	.466	.480
	B	.462	.336	.419	....	.629	.561	.397	.421
Quiet Play	G	.567	.526	.501	.652	....	.612	.589	.631
	B	.590	.471	.575	.629	....	.706	.565	.594
Manual Arts	G	.511	.388	.405	.598	.612	....	.553	.572
	B	.607	.388	.482	.561	.706	....	.588	.541
Home Arts	G	.510	.489	.460	.466	.589	.553	....	.524
	B	.547	.483	.462	.397	.565	.588	....	.534
Science	G	.484	.401	.682	.480	.631	.572	.524	....
	B	.489	.432	.758	.421	.594	.541	.534	....

Source: SRA Examiner's Manual for What I Like to Do, An Inventory of Children's Interests, First Edition, 1954, p.13.

Table 2

Reliabilities of the Eight Interest Scores

Sex	Boys (N=402)				Girls (N=398)			
Grade	4	5	6	7	4	5	6	7
N	114	134	126	38	126	122	116	34
Art	.782	.792	.819	.761	.715	.702	.708	.778
Music	.866	.873	.858	.843	.823	.838	.853	.798
Social Studies	.928	.909	.923	.901	.916	.894	.899	.916
Active Play	.864	.843	.851	.787	.881	.830	.836	.853
Quiet Play	.873	.831	.836	.856	.856	.817	.809	.804
Manual Arts	.905	.889	.880	.908	.900	.871	.818	.786
Home Arts	.910	.882	.876	.860	.896	.899	.880	.800
Science	.972	.966	.969	.953	.966	.965	.956	.960

Source: SRA Examiner's Manual for What I Like to Do, An Inventory of Children's Interests, First Edition, 1954, p. 12.

The test was standardized on a stratified sample representing 341 school systems in 48 states. All the pupils in the standardization groups were also administered the *California Test of Mental Maturity*, therefore control of mental age was possible. By means of dual standardization, the authors have provided norms representing the typical performance of pupils throughout the United States.

Reliability coefficients, obtained for Upper Primary, grade three, ranged from .69 for spelling to .95 for arithmetic fundamentals. The reliability coefficient obtained for the Elementary battery, grade five, ranged from .70 for arithmetic fundamentals to .95 for total reading.

The items of the *California Achievement Tests* were subjected to both content validity and construct validity. They were selected for content validity to measure subject-matter objectives of the curriculum. They were further submitted to curriculum experts, research specialists, college professors, teachers, and state department of education personnel for critical review. Construct validity was determined through correlations obtained between the scores on the different tests and *California Test of Mental Maturity*, language scores and non-language scores. These ranged from .55 between spelling and non-language scores to .85 (corrected for attenuation) between reading vocabulary and language scores. Correlations were also obtained between the different tests of the *California Achievement Tests* and the *Stanford Achievement Tests*.

The *California Short-Form Test of Mental Maturity* is an abridgement of the earlier *California Test of Mental Maturity* (78). It is an instrument for appraising mental development or mental capacity. The test contains seven subtests which sample four main areas of mental activity, or mental factors: spatial relations, logical reasoning, numerical reasoning, and verbal concepts. The Tests provide a Language I.Q., Non-Language I.Q., and Total I.Q.

The norms are given in terms of mental ages and I.Q.'s. The reliability was assessed by several methods. The Kuder-Richardson formula showed the reliability of the total scores to vary between .87 and .89 at most grade levels. The validity coefficients consist of corrected correlations with the Stanford-Binet and WISC, also with group intelligence tests. These varied with different tests with which the scores were correlated, the correlations averaging about .75.

The Michigan Picture Test is a projective personality technique developed for use with children eight to fourteen years of age. It was developed as an instrument for evaluating social and emotional conflict situations which may be relevant to different individuals in differing ways. It consists of sixteen picture cards, four for boys only, and four for girls only, eight to be used by both boys and girls. There is a core group of six cards which seem to be about as accurate for screening and predictive purposes on some of the variables as the entire series.

For this particular study the following core cards were used:

Card 1. A family of four at the table. The man is reading the paper, and the woman is feeding the boy.

Card 2. Boy and girl standing together. The boy is holding a straw hat.

Card 6. Mixed group of children playing checkers.

7

Card 7. Boys walking up road in the country.

Card 9. Long streak of lightning on black background.

Card 12. A blank card.

Objective scoring methods have been developed for the Core Cards. "The Analysis Sheet" (see Appendix) includes; The Tension Index (love, extrapunitive, submission, and personal adequacy); Verb Tense; Direction of Forces; Interprrsonal Relations; Personal Pronouns; Psychosexual; Popular Objects; and, Combined Maladjustment Index The methods of objective scoring employ a structural analysis based upon the formal characteristics of the stories. Of these several possible measures, only the Tension Index, Verb Tense, and Direction of Forces have been found to discriminate satisfactorily the poorly adjusted and the well adjusted.

The usual methods of testing reliability of new tests are not applicable to projective techniques of the type of the Michigan Picture Test. Interscores reliability on the tension index card was obtained by correlating the sum of the needs on the four core pictures obtained by two judges. These correlations, presented in Table 3, seem significantly high to permit acceptance of the reliability of the scoring method for this group of pictures.

III RESEARCH PROCEDURES

The Self Concept Scale, Child Self Description Scale, Children's Manifest Anxiety Scale, and the interest inventory, What I Like to Do, were administered in the classrooms by a member of the Cooperative Research group. The classroom teacher of the groups remained in the classroom

Table 3

Tension Index -- Correlations of Scores Obtained by Two Judges on 15 Cases at Each Grade Level

	r*				
Grade	All Needs	Love	Extrapunitiveness	Submission	Personal Adequacy
3	.98	.67	.93	1.00	.93
5	.98	.91	.97	.98	.97
7/9	.98	.98	.98	.81	.70

* All correlations are significant at the 1 per cent confidence level.

Source: The Michigan Picture Test Manual, 1953, p.38.

and assisted in passing out and collecting the tests and in helping pupils faced with special problems connected with taking the tests.

In the fourth-grade classrooms, the tests were read aloud by the person administering the tests, and pupils read the tests silently and supplied answers to the different items. Sufficient time was allowed for the students to complete each item of a test before going to the next item. However, those administering the tests were careful to follow the general directions set forth for administering the different tests. The sixth-grade pupils read silently the different test items. Help was offered only in those instances where there was a special reading problem.

The *California Achievement Tests* and the *California Short-Form Test of Mental Maturity* had been administered to both the fourth- and sixth-grade groups less than three months prior to the administration of the *Self Concept*, *Self Description*, *Manifest Anxiety Scales*, and the *Michigan Picture Test*. These tests were a part of a long-range, well-planned program of educational measurement. In view of the recency of the records, it was decided that the results of this testing program would be appropriate and adequate for the design of this study. Therefore the results from the *California Achievement Tests* and the *California Test of Mental Maturity, Short Form*, were obtained from the cumulative records. Other materials dealing with the family background, health, and educational achievement were also obtained from the cumulative records. Data were transferred from the child's cumulative record to a transcription sheet.

Within a few days after the administration of the group scales, the six core cards of the Michigan Picture Test were administered to 271 children by the same person, one of the staff members. Thus any errors deriving from examiner sources were minimized. Complete tape recordings were made for each of the 271 children administered the Michigan Picture Test. These recordings were transcribed and typed. The resulting protocols were scored by a team of two individuals according to the directions set forth in the Test Manual.

All data were transcribed and prepared for statistical treatment. Frequency distributions, means, standard deviations, and Pearson correlation coefficients were secured for the four major groups studied.

The hypotheses stated in Chapter I were tested statistically by comparison of means, the "t" test of differences in means, correlations, and chi-squares. The computation was greatly facilitated by the use of the I.B.M. 1620 computer and the assistance of the staff of the Institute of Experimental Statistics of the University of Georgia.

IV DEFINITIONS OF TERMS

Although some of the following terms are likely to be self-explanatory, in the interests of clarity and accuracy, the following definitions are presented:

Self Concept - The way an individual says he thinks of himself. Ratings given the self on descriptive adjectives; specifically the score on the modification of the Bills-Lipsitt Index of Adjustment and Values.

Ideal Self - Ratings given by the individual on descriptive adjectives of how he would like to be; specifically the score on the Self

Concept Scale of how the pupil says he would like to be.

Intelligence Quotient (I.Q.) - Intelligence quotient, the ratio between the mental age and chronological age. In this study, the I.Q. was obtained from the score on the California Short Form Test of Mental Maturity, and could more precisely be termed the California I.Q.

Achievement Score(s) - The score(s) obtained from the California Achievement Test. The Achievement Test is subdivided into the following categories: reading vocabulary, reading comprehension, arithmetic reasoning, arithmetic fundamentals, mechanics of English, spelling.

Manifest Anxiety - Manifest means that form of anxiety which is observable, and, therefore, capable of being identified. It involves an overt expression of the inner feelings of abnormal fears and apprehension. Anxiety can be considered either as a theoretical motivating factor, present by inference rather than by direct observation, or as a descriptive term for a syndrome of psychological and physiological tension. Manifest anxiety embodies the behavioral responses of fear and apprehension which psychiatrists have observed to be manifest to an abnormal degree in persons suffering from neurosis. Anxiety as a pathological manifestation is to be differentiated from normal anxiety which occurs in response to an actual external threat.

Personal-social orientation - Score obtained from the Child Self

Description Scale by use of the formula 20 plus number of personal choices from 11 of the 19 pentads of the Carlson Self Description Scale minus the number of social choices. These scores had a possible range of 9 to 31, with an expected mean value of 20.

Parent discrepancy - The difference between the child's score on the Self Concept Scale and the mother's and father's opinion of the same child on the same scale. Information about mothers' and fathers' opinions was obtained for a subsample of the larger group, and is discussed in connection with the case studies reported in Chapter V.

Pentad - Group of five from which a choice is to be made.

Social self - The individual's notion of how he is regarded by others.

Socio-economic status - The socio-economic status will be determined by the type of employment of the supporting parent.

Teacher discrepancy - The difference between the child's score on the Self Concept Scale and the teacher's opinion of the same child on the same scale.

CHAPTER IV

FINDINGS

This chapter is devoted to description and analysis of data with focus primarily on the traits related to the self concept as contrasted to the dynamic interrelations of these traits within a given individual. Chapter V describes eight individuals in terms of the traits as they relate to other aspects of the lives of these individuals. The findings in this chapter are reported in the form of tables and figures, and the discussion which accompanies them is arranged in an order corresponding to the hypotheses listed in Chapter I. For convenience and economy in the tabular presentation, the groups are designated as follows: Group A: fourth-grade boys, N=65; Group B: fourth-grade girls, N=60; Groups A and B: fourth-grade boys and girls combined, N=125; Group C: sixth-grade boys, N=76; Group D: sixth-grade girls, N=70; Groups C and D: sixth-grade boys and girls combined, N=146.

Description of Self Concepts

Hypotheses one through four are related to self concepts. The findings pertaining to these hypotheses are presented in Tables 4, 5, and 6. Table 4 gives the means, standard deviations, and tests of significance (the "t test") of the several groups for the traits and characteristics measured by the Self Concept Scale, the Child Self Description Scale, and the Children's Manifest Anxiety Scale.

In comparing the four groups, the mean self concept of fourth-grade boys was lowest, with sixth-grade girls rating themselves highest. The order from lowest to highest in both the self concept and the self ideal concept was fourth-grade boys, sixth-grade boys, fourth-grade girls, sixth-

Table 4

Means, Standard Deviations and Tests of Significance of Several Measures of Self Concept and Manifest Anxiety of Groups of Elementary Pupils

Variable		A(65)#	B(60)#	A+B(125)#	C(76)#	D(70)#	C+D(146)#
Self Concept	$\bar{X}$	73.05	78.31	75.58	73.83	78.41	76.10
	s	10.05	7.44	9.23	7.96	6.51	7.60
Self Ideal Concept	$\bar{X}$	83.14	86.15	84.59	85.80	88.02	86.90
	s	13.26	12.75	13.04	5.93	3.31	7.62
Personal-Social Orientation	$\bar{X}$	21.70	21.08	21.40	20.94	21.17	21.05
	s	2.37	2.66	2.52	2.79	2.36	2.58
Manifest Anxiety	$\bar{X}$	18.39	21.33	19.81	17.42	17.34	17.38
	s	7.25	8.50	7.97	7.31	7.98	7.62

Tests of Significance

	A-B#	C-D#	A-C#	B-D#	(A+B) - (C+D)#
Self Concept	-3.11**	-3.58**	-.47	-.08	-.47
Self Ideal Concept	-1.20	-2.64**	-1.39	-1.03	-1.74
Personal-Social Orientation	1.23	-.50	1.62	-.19	1.05
Manifest Anxiety	-1.93	.06	.73	2.59*	2.38*

* Significant at .05 level.
** Significant at .01 level.
# The groups designated by the letters are described in the accompanying text.

grade girls. Variability of boys for both measures of the instrument was greater than that of girls at both grade levels. Variability of fourth-grade groups was greater than that of sixth-grade groups, especially in the instance of the self ideal concept.

Hypotheses one and two related to developmental differences within sexes were accepted since for both boys and girls, the differences obtained could readily be accounted for by chance. In fact, there is remarkable consistency since there is less than one point difference in both boys' and girls' means at the two grade levels. Hypotheses three and four related to sex differences by grades were rejected since the differences between boys and girls at the two grade levels could not readily be attributed to chance. At both grade levels, girls had significantly higher self concept ratings.

The differences in the self ideal concept between Groups A and B, C and D, A and C, B and D, and A and B as compared with C and D were not significantly different from chance with the exception of the difference between sixth-grade boys and sixth-grade girls. Sixth-grade girls had a significantly higher mean self ideal concept than did sixth-grade boys.

On the personal-social orientation variable of Carlson's Child Self Description Scale, the means for all groups were remarkably similar varying only from 20.94 to 21.70, indicating very slight leaning toward personal orientation, since 20 was a "neutral" score. All differences were statistically nonsignificant from chance expectancy.

On the Children's Manifest Anxiety Scale, sixth-grade girls had the lowest mean (17.34) with fourth-grade girls having the highest (21.33). The difference between girls at the two grade levels was statistically significant; also, the mean anxiety score of fourth-grade boys and girls combined (A and B) was significantly greater than the mean anxiety score of sixth-grade girls and boys combined (C and D). All other differences were nonsignificant.

Tables 5 and 6 report means, standard deviations, and tests of significance for the several means of the self-descriptive measures derived from the _Michigan_ _Picture_ _Test_. The measures reported are those which according to the authors of the _Test_ have been successful in differentiating between well-adjusted and poorly-adjusted children. The three basic measures are (1) the _tension_ _index_ with the expression of love needs, extra-punitive needs, submission needs, and personal adequacy needs; (2) the _tense_ _of_ _verbs_, with total number of verbs (in some respects a measure of loquacity), and percentages of past tense verbs, present tense verbs, and future tense verbs used; and (3) the _direction_ _of_ _forces_ (centripetal or centrifugal) for each of three selected pictures (2, 6, and 7) and for the three added together. In addition to these major indices with subindices, a _combined_ _maladjustment_ _index_ (combining features of all three indices), and a frequency count of the total number of references to _psychosexual_ terms (another rough index of loquacity) have been reported.

Responses to the _Michigan_ _Picture_ _Test_, as revealed by the data in Tables 5 and 6 were rather similar for the four groups. All groups scored within a pattern which could be described as being comparable to the groups on which the norms were based, with the exception that there seemed to be generally more emphasis on the use of past-tense verbs rather than present-tense verbs for the samples of this study as compared with the norm groups. Only the tension index variables revealed significant differences among the several groups. Sixth-grade

Table 5

Means and Standard Deviations of Self-Descriptive Measures Derived From The Michigan Picture Test of Groups of Elementary Pupils

Michigan Picture Test Variables		A(65)#	B(60)#	A+B(125)#	C(76)#	D(70)#	C+D(146)
Love Needs	$\bar{X}$	34.4	37.2	35.7	28.4	32.6	30.4
	s	10.1	11.2	10.7	11.3	12.5	12.1
Extra Punitive Needs	$\bar{X}$	29.2	25.5	27.4	30.8	27.0	28.9
	s	11.8	12.9	12.4	17.0	13.3	15.3
Submission Needs	$\bar{X}$	1.9	2.1	2.0	3.3	3.3	3.3
	s	3.0	3.6	3.3	5.1	5.0	5.1
Personal Adqquacy Needs	$\bar{X}$	34.6	35.1	34.8	37.4	37.2	37.3
	s	9.7	13.9	11.8	18.8	18.5	18.6
Tension Index	$\bar{X}$	26.0	26.3	26.1	29.3	26.5	27.9
	s	10.6	11.1	10.8	12.2	8.9	10.7
Total Number of Verbs	$\bar{X}$	82.1	76.4	79.4	84.2	77.3	80.8
	s	48.7	53.3	50.8	46.2	46.5	46.3
Past Tense Verbs	$\bar{X}$	51.3	52.2	51.7	56.6	53.3	55.0
	s	30.3	34.6	32.3	33.8	32.3	33.0
Present Tense Verbs	$\bar{X}$	43.8	44.2	44.0	39.4	43.4	41.4
	s	27.7	34.2	30.9	31.2	32.7	31.9
Future Tense Verbs	$\bar{X}$	4.0	3.5	3.8	3.9	3.3	3.6
	s	7.9	5.6	6.8	5.0	3.9	4.5
Direction of Forces Story 2	$\bar{X}$	2.25	1.85	2.06	2.02	2.33	2.17
	s	3.00	2.55	2.79	3.05	3.04	3.04
Story 6	$\bar{X}$	1.32	1.58	1.44	1.38	1.47	1.43
	s	1.16	1.00	1.09	1.06	1.14	1.10
Story 7	$\bar{X}$	1.38	1.54	1.45	1.35	.95	1.16
	s	1.69	1.77	1.72	1.74	1.31	1.55
Sum of Weighted Scores	$\bar{X}$	4.95	4.96	4.95	4.75	4.75	4.75
	s	4.54	3.82	4.19	3.71	4.00	3.84
Combined Maladjustment Scale Score	$\bar{X}$	2.39	2.42	2.41	2.37	2.50	2.43
	s	.91	.94	.92	1.02	.99	1.01
Total No. of Psycho-sexual References	$\bar{X}$	16.1	15.1	15.6	17.8	16.9	17.3
	s	8.4	9.9	9.2	9.0	9.8	9.4

# The groups designated by the letters are described in the accompanying text.

Table 6

Significance Values (t-tests) of Self-Descriptive Measures
Derived from the Michigan Picture Test

Variable	(A-B)#	(C-D)#	(A-C)#	(B-D)#	(A+B)-(C+D)#
Love Needs	-1.40	-1.99*	3.09**	2.12*	3.57**
Extra Punitive Needs	1.52	1.44	-.64	-.59	-.83
Submission Needs	-.29	.02	-1.88	-1.50	-2.39*
Personal Adequacy Needs	-.25	.09	-1.09	-.67	1.24
Total Tension Index	-.17	1.47	-1.24	-.39	1.28
Total Number of Verbs	.58	.83	-.24	-.09	.22
Past Tense Verbs	-.14	.58	-.92	-.18	.76
Present Tense Verbs	-.06	-.72	.83	.12	-.64
Future Tense Verbs	.38	.85	.07	.28	-.23
Story 2 - Weighted Score	.74	-.57	.44	-.92	.29
Story 6 - Weighted Score	-1.19	-.47	-.30	.55	.07
Story 7 - Weighted Score	-.48	1.48	.09	2.03*	1.35
Sum of Weighted Scores	-.01	.00	.29	.29	.38
Combined Maladjustment Scale	-.17	.94	.12	-.44	-.16
Total References to Psychosexual	.60	.55	-1.04	-.98	1.42

* Significant at .05 level.
** Significant at .01 level.
# The groups designated by the letters are described in the accompanying text.

boys expressed a significantly greater mean percentage of love needs than did sixth-grade girls; and both fourth-grade groups expressed significantly greater mean percentages of love needs than did their sixth-grade counterparts. Likewise, the fourth-grade groups combined expressed significantly fewer submission needs than did the sixth-grade groups combined. It would appear that all of these significant differences could be attributed to developmental differences since younger children would logically have a need for love and less for submission than older children, and boys because of their slower physical development may exhibit a greater need for love than girls.

The weighted score of the direction of forces for Story 7 for fourth-grade girls was significantly greater than that of the sixth-grade girls. (Picture Number 7 presented four boys walking down the road.) Since all mean scores were well below the critical score indicating maladjustment, the meaning of this significant difference is not immediately apparent. Perhaps the fourth-grade girls on the average were more naive than the sixth-grade girls and gave a greater number and variety of responses to this neutral or innocuous picture.

Description of Intelligence, Achievement, and Interests

Since a determination of the relationships of the self concepts of several groups of elementary pupils to intelligence, achievement, and interests is a major objective of this study, it is deemed appropriate to describe the characteristics of the groups in these variables. Table 7 gives means and standard deviations for the language I.Q., non-language I.Q., total I.Q. and achievement grade placements for the six subtests for each of the four groups. The tests have been described and defined earlier as California tests. The groups were comparable to the national

Table 7

Mean California Intelligence Quotients and California Achievement Grade Placements for Selected Groups of Elementary Pupils

Variables		A(65)#	B(60)#	C(76)#	D(70)#
Intelligence Factors					
Language I.Q.	$\bar{X}$	105.5	102.7	104.3	108.0
	s	18.8	24.0	19.4	16.2
Non-Language I.Q.	$\bar{X}$	102.3	102.3	103.6	105.6
	s	25.2	27.6	21.1	20.1
Total I.Q.	$\bar{X}$	105.4	102.7	104.1	106.6
	s	26.8	24.8	18.0	17.0
Achievement Factors					
Rdg. Vocabulary	$\bar{X}$	3.9	4.0	6.3	6.7
	s	0.9	0.9	2.0	1.3
Rdg. Comprehension	$\bar{X}$	3.9	4.1	5.9	6.7
	s	1.2	1.0	1.9	1.6
Arith. Reasoning	$\bar{X}$	4.1	4.3	5.7	6.1
	s	1.0	0.8	1.5	1.5
Arith. Fundamentals	$\bar{X}$	4.1	4.0	6.3	6.4
	s	0.6	0.7	1.1	0.9
English	$\bar{X}$	4.2	4.4	6.4	7.3
	s	0.9	0.9	2.0	1.6
Spelling	$\bar{X}$	3.9	4.1	6.3	6.9
	s	1.0	1.0	1.7	1.6

# The groups designated by the letters are described in the accompanying text.

norm group means since intelligence and achievement vary very little from national norms. Girls achieved slightly better scores than boys in all subtests except arithmetic fundamentals at the fourth-grade level.

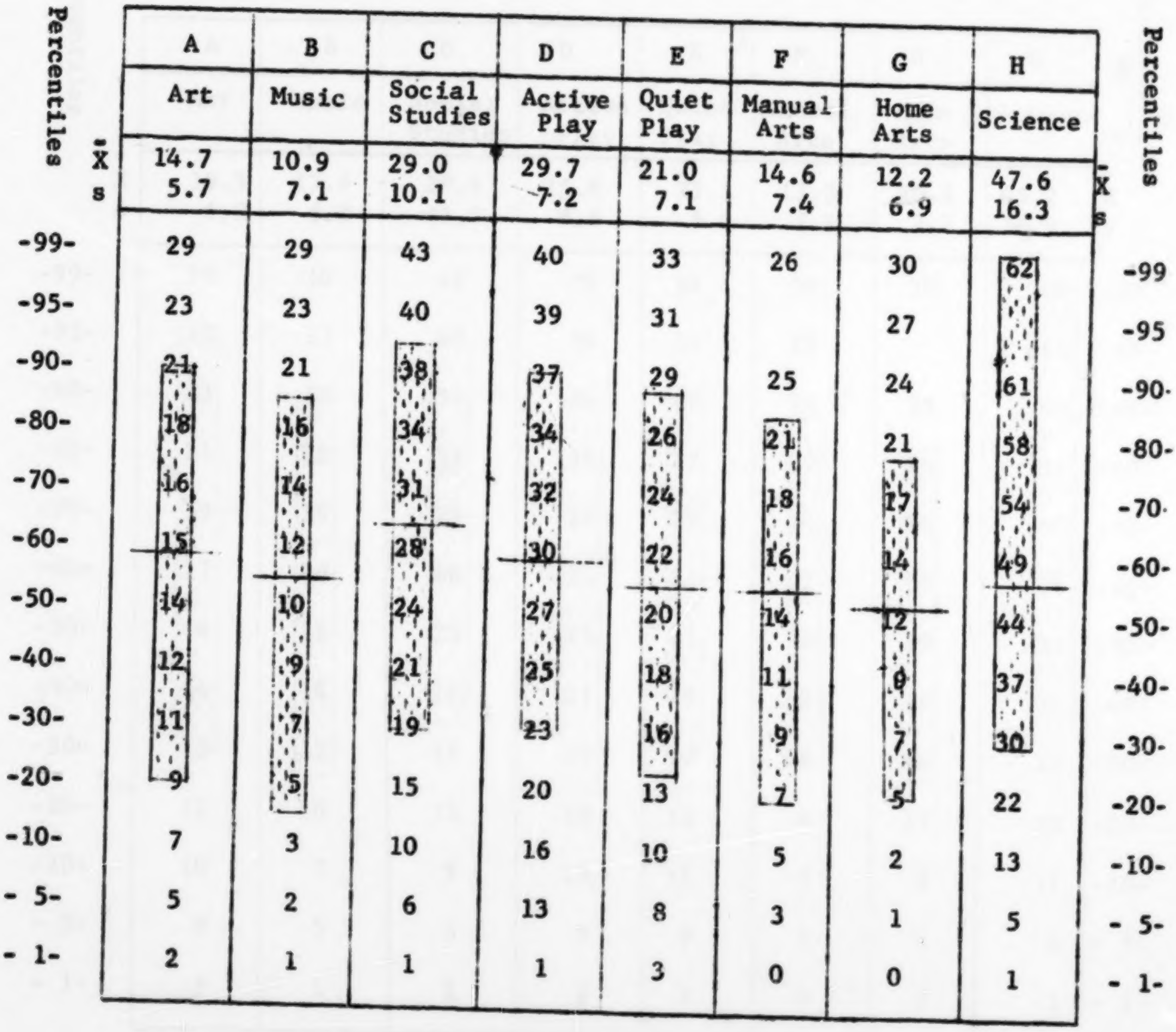
Results of the What I Like to Do interest inventory are presented in Figures 1 through 4 which depict the means and standard deviations on the eight subscales for each of the four groups. It may readily be observed that Groups A, B, and C corresponded fairly closely to the national norm groups, indicating in general slightly greater interest in most of the areas represented by the subscales, whereas Group D, the sixth-grade girls, scored generally below their counterparts in the norm group in most areas. The total interest score represents an addition of the scores of the eight subscales to suggest a general attitude of "interest." Total interest means and standard deviations for the four groups were as follows: Group A: $\bar{x}=179.7$, $s=52.8$; Group B: $\bar{x}=195.8$, $s=59.4$; Group C: $\bar{x}=150.6$, $s=52.5$; Group D: $\bar{x}=154.2$, $s=46.1$. Table 8 gives the significance values on the t-tests of differences for the several groups on the eight subscales and the total interest score (the sum of the eight subscores). Boys at both grade levels were significantly more interested in active play than girls and significantly less interested in art, music, and home arts. Sixth-grade boys were significantly more interested in manual arts than sixth-grade girls. It would appear that these differences would accord with the usually encountered cultural differences in interests between boys and girls.

With respect to grade differences, fourth-grade boys and girls expressed greater interest in all eight subscales and the combined inventory than their sixth-grade counterparts. The differences for the girls were significant in all eight categories and the total. Boys at

WHAT I LIKE TO DO

An Inventory of Children's Interests

Profile Chart for Boys - Grade 4

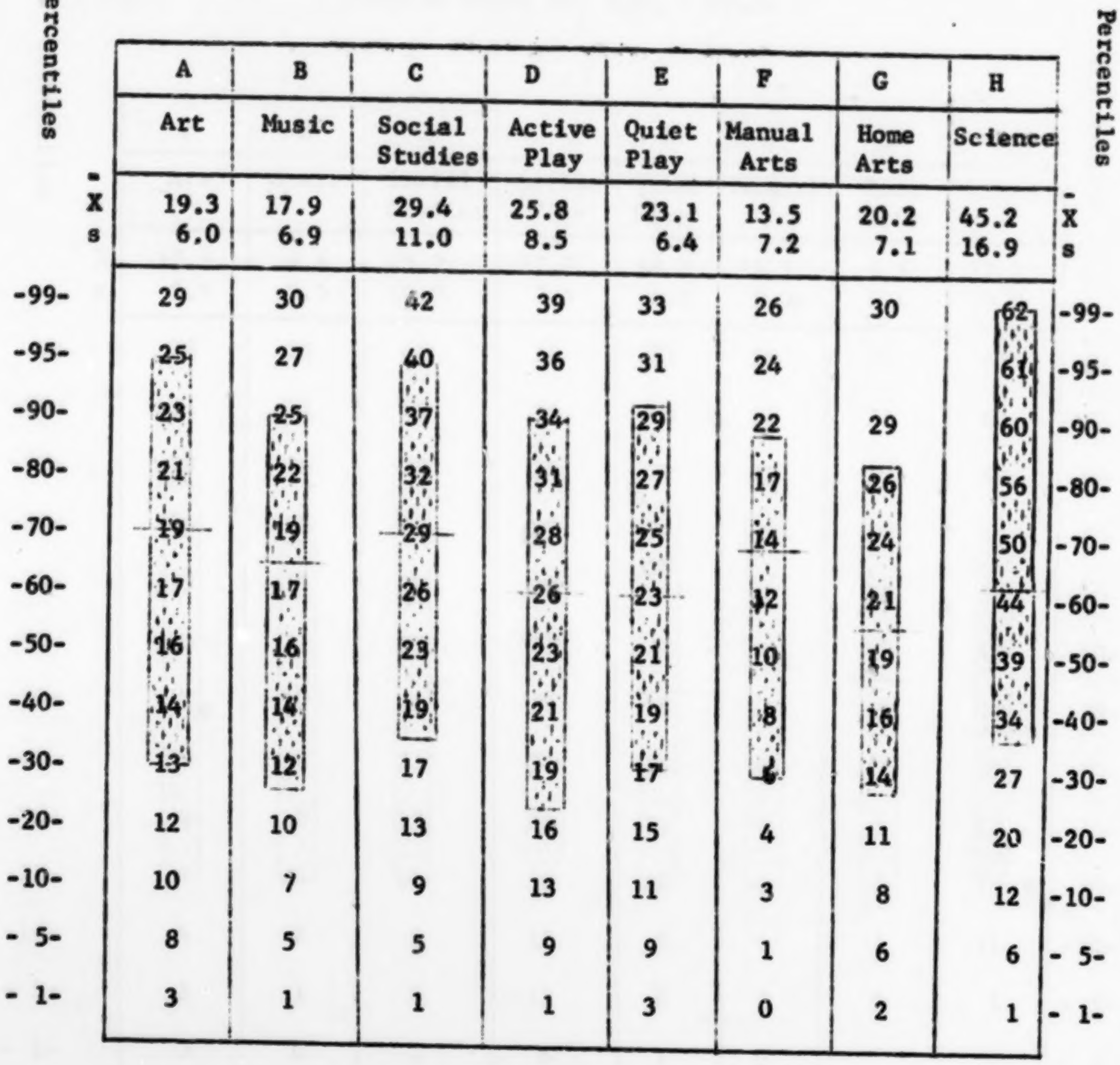


Percentiles	A Art	B Music	C Social Studies	D Active Play	E Quiet Play	F Manual Arts	G Home Arts	H Science	Percentiles
X̄	14.7	10.9	29.0	29.7	21.0	14.6	12.2	47.6	X̄
s	5.7	7.1	10.1	7.2	7.1	7.4	6.9	16.3	s
-99-	29	29	43	40	33	26	30	62	-99
-95-	23	23	40	39	31		27		-95
-90-	21	21	38	37	29	25	24	61	-90-
-80-	18	16	34	34	26	21	21	58	-80-
-70-	16	14	31	32	24	18	17	54	-70-
-60-	15	12	28	30	22	16	14	49	-60-
-50-	14	10	24	27	20	14	12	44	-50-
-40-	12	9	21	25	18	11	9	37	-40-
-30-	11	7	19	23	16	9	7	30	-30-
-20-	9	5	15	20	13	7	5	22	-20-
-10-	7	3	10	16	10	5	2	13	-10-
- 5-	5	2	6	13	8	3	1	5	- 5-
- 1-	2	1	1	1	3	0	0	1	- 1-

Figure 1

Means and Standard Deviations of Fourth-Grade Boys on Subscales of WHAT I LIKE TO DO, An Inventory of Children's Interests in Comparison with Percentiles Given on Profile Chart Provided in Test Manual

WHAT I LIKE TO DO
An Inventory of Children's Interests
Profile Chart for Girls - Grade 4



Percentiles	A Art	B Music	C Social Studies	D Active Play	E Quiet Play	F Manual Arts	G Home Arts	H Science	Percentiles
$\bar{X}$	19.3	17.9	29.4	25.8	23.1	13.5	20.2	45.2	$\bar{X}$
s	6.0	6.9	11.0	8.5	6.4	7.2	7.1	16.9	s
-99-	29	30	42	39	33	26	30	62	-99-
-95-	25	27	40	36	31	24		61	-95-
-90-	23	25	37	34	29	22	29	60	-90-
-80-	21	22	32	31	27	17	26	56	-80-
-70-	19	19	29	28	25	14	24	50	-70-
-60-	17	17	26	26	23	12	21	44	-60-
-50-	16	16	23	23	21	10	19	39	-50-
-40-	14	14	19	21	19	8	16	34	-40-
-30-	13	12	17	19	17	6	14	27	-30-
-20-	12	10	13	16	15	4	11	20	-20-
-10-	10	7	9	13	11	3	8	12	-10-
- 5-	8	5	5	9	9	1	6	6	- 5-
- 1-	3	1	1	1	3	0	2	1	- 1-

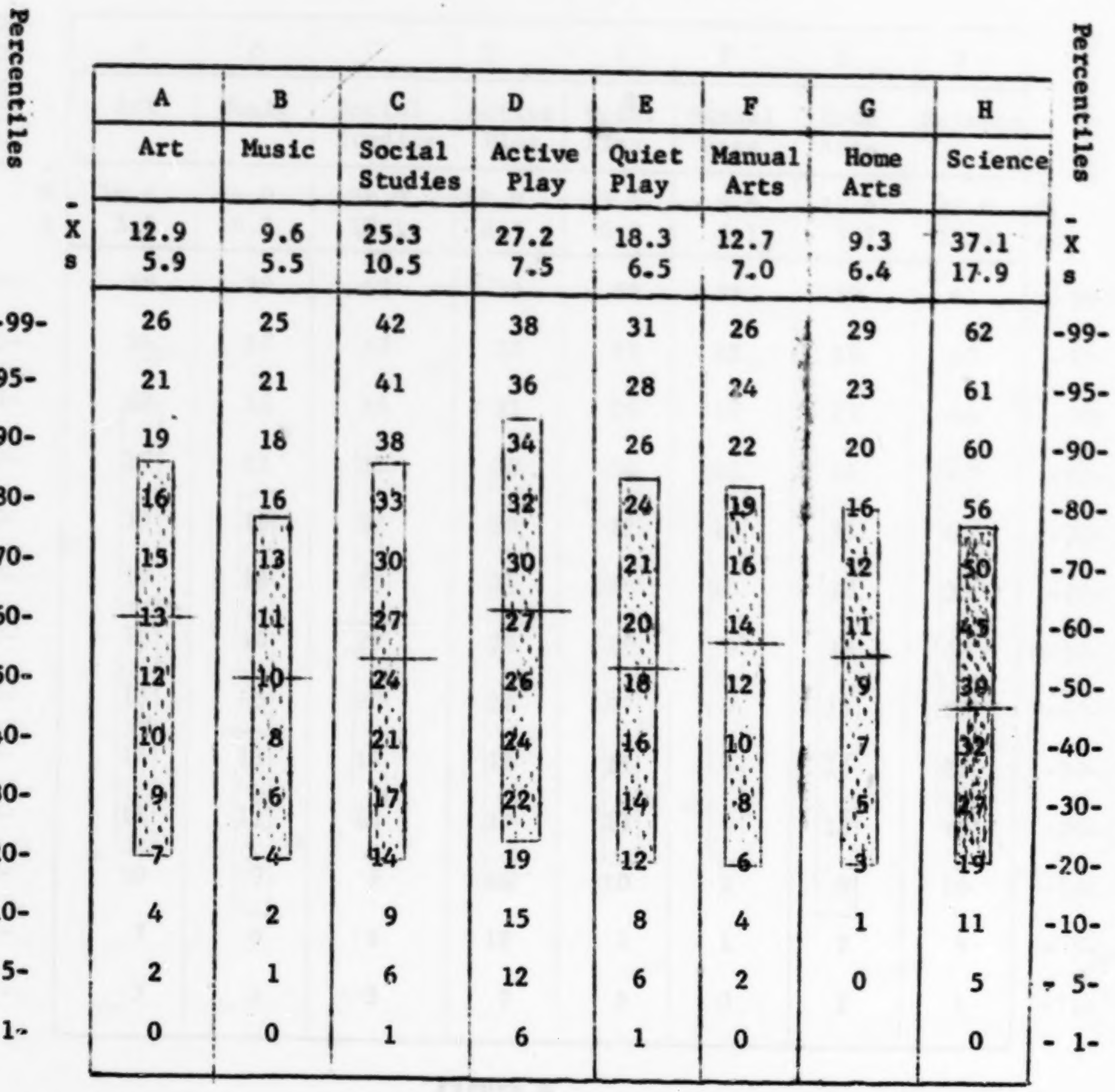
Figure 2

Means and Standard Deviations of Fourth-Grade Girls on Subscales of WHAT I LIKE TO DO, An Inventory of Children's Interests in Comparison with Percentiles Given on Profile Chart Provided in Test Manual

WHAT I LIKE TO DO

An Inventory of Children's Interests

Profile Chart for Boys - Grade 6

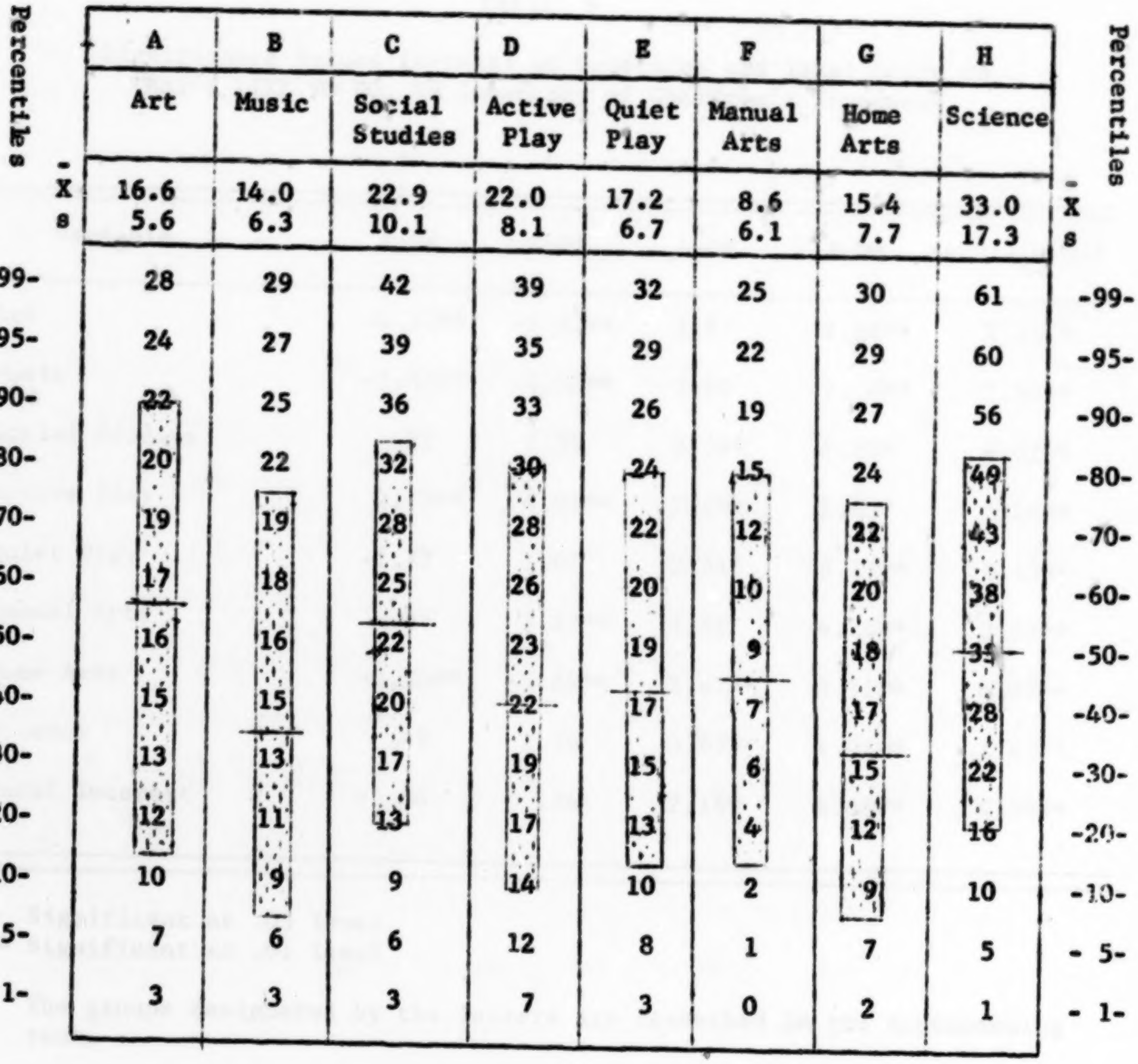


Percentiles	A Art	B Music	C Social Studies	D Active Play	E Quiet Play	F Manual Arts	G Home Arts	H Science	Percentiles
X̄ s	12.9 5.9	9.6 5.5	25.3 10.5	27.2 7.5	18.3 6.5	12.7 7.0	9.3 6.4	37.1 17.9	X̄ s
-99-	26	25	42	38	31	26	29	62	-99-
-95-	21	21	41	36	28	24	23	61	-95-
-90-	19	18	38	34	26	22	20	60	-90-
-80-	16	16	33	32	24	19	16	56	-80-
-70-	15	13	30	30	21	16	12	50	-70-
-60-	13	11	27	27	20	14	11	45	-60-
-50-	12	10	24	26	18	12	9	39	-50-
-40-	10	8	21	24	16	10	7	32	-40-
-30-	9	6	17	22	14	8	5	27	-30-
-20-	7	4	14	19	12	6	3	19	-20-
-10-	4	2	9	15	8	4	1	11	-10-
- 5-	2	1	6	12	6	2	0	5	- 5-
- 1-	0	0	1	6	1	0		0	- 1-

Figure 3

Means and Standard Deviations of Sixth-Grade Boys on Subscales of WHAT I LIKE TO DO, An Inventory of Children's Interests in Comparison with Percentiles Given on Profile Chart Provided in Test Manual

WHAT I LIKE TO DO
An Inventory of Children's Interest
Profile Chart for Girls - Grade 6



Percentiles	A	B	C	D	E	F	G	H	Percentiles
	Art	Music	Social Studies	Active Play	Quiet Play	Manual Arts	Home Arts	Science	
$\bar{X}$	16.6	14.0	22.9	22.0	17.2	8.6	15.4	33.0	$\bar{X}$
s	5.6	6.3	10.1	8.1	6.7	6.1	7.7	17.3	s
-99-	28	29	42	39	32	25	30	61	-99-
-95-	24	27	39	35	29	22	29	60	-95-
-90-	22	25	36	33	26	19	27	56	-90-
-80-	20	22	32	30	24	15	24	49	-80-
-70-	19	19	28	28	22	12	22	43	-70-
-60-	17	18	25	26	20	10	20	38	-60-
-50-	16	16	22	23	19	9	18	35	-50-
-40-	15	15	20	22	17	7	17	28	-40-
-30-	13	13	17	19	15	6	15	22	-30-
-20-	12	11	13	17	13	4	12	16	-20-
-10-	10	9	9	14	10	2	9	10	-10-
- 5-	7	6	6	12	8	1	7	5	- 5-
- 1-	3	3	3	7	3	0	2	1	- 1-

Figure 4

Means and Standard Deviations of Sixth-Grade Girls on Subscales of WHAT I LIKE TO DO, An Inventory of Children's Interests in Comparison with Percentiles Given on Profile Chart Provided in Test Manual

Table 8

Significance Values (t-test) of Subscales and Total Score on WHAT I LIKE TO DO, An Inventory of Children's Interests

Variable	A-B#	C-D#	A-C#	B-D#	(A+B)-(C+D)#
Art	-4.51**	-3.92**	1.87	2.66**	2.95**
Music	-5.61**	-4.50**	1.20	7.16**	2.90**
Social Studies	-.22	1.39	2.30*	2.20*	4.02**
Active Play	2.75**	4.02**	2.29*	2.60*	3.24**
Quiet Play	-1.77	1.01	2.34*	5.13**	5.13**
Manual Arts	.83	3.82**	1.52	4.15**	3.93**
Home Arts	-6.36**	-5.24**	2.62**	3.71**	4.07**
Science	.49	1.39	3.67**	4.06**	5.43**
Total Interest	-1.64	.74	2.16*	4.68**	4.70**

* Significant at .05 level
** Significant at .01 level

# The groups designated by the letters are described in the accompanying text.

the fourth-grade level expressed significantly greater interest in social studies, active play, quiet play, home arts, science, and the total inventory. It would seem logical to infer that greater interest on the part of fourth-grade pupils is primarily a function of development, that with increasing age and experience come less naivete, less curiosity, more sophistication. Two additional years of experience have provided opportunities to satisfy curiosity and pupils no longer express a desire to learn about the familiar as compared with the unfamiliar. This expression of disinterest or disdain may also be a function of the increasing independence of the sixth-grade pupil.

Descriptions of Relationships with Self Concept

Hypotheses five through eight stated that there is no significant relationship between measures of the self concept and measures of achievement, intelligence, manifest anxiety, and interest. This section reports correlations between these four variables with sub-variables and the self concept scale, the self ideal concept, the personal-social orientation measure from the Carlson Self Description Scale and selected measures of the Michigan Picture Test. Intercorrelations between these several scales are also reported.

Table 9 presents Pearson product-moment correlations between the Self Concept Scale and chronological age, intelligence factors, achievement factors, interest factors, and manifest anxiety factor for the fourth- and sixth-grade boys and girls and the two grade groups combined. Since the groups varied in size, the correlation values to be significant from zero varied according to the following pattern:

A value to be significant at the .05 level had to be as follows for the particular group: Group A, .245; Group B, .254; Groups A and B

Table 9

Correlations Between Self Concept and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils

Variable	A(65)#	B(60)#	A+B(125)#	C(76)#	D(70)#	C+D(146)#
Chronological Age	392**	-121	230**	-227*	-156	-197*
Intelligence Factors						
Language I.Q.	306**	179	250**	394**	004	264**
Non-Language I.Q.	376**	113	279**	346**	-038	188*
Total I.Q.	278**	154	226*	411**	-009	245**
Achievement Factors						
Rdg. Vocabulary	328**	144	292**	296**	091	269**
Rdg. Comprehension	396**	285*	382**	414**	111	350**
Arith. Reasoning	317**	209	299**	280*	-019	191*
Arith. Fundamentals	281*	190	242**	269*	035	204*
English	525**	039	376**	341**	101	330**
Spelling	211	076	206	327**	107	293**
Total Battery	430**	189	360**	390**	063	308**
Interest Factors						
Art	213	444**	376**	050	-066	113
Music	301*	308*	380**	002	057	143
Social Studies	094	363**	198	-020	096	003
Active Play	-021	392**	077	-131	-045	-172*
Quiet Play	-066	412**	153	-100	-107	-10[illegible]
Manual Arts	025	366**	121	-121	-090	-151*
Home Arts	125	305*	302**	-143	034	054
Science	-132	310*	033	-167	023	-100
Total Interest	047	412**	232**	-119	010	-052
Anxiety Factor						
C.M.A. Scale	-354**	-299*	-249**	-458**	-216	-327**

* Significant at .05 level.
** Significant at .01 level.

# The groups designated by the letters are described in the accompanying text.

Decimals have been omitted.

combined, .174; Group C, .225; Group D, .234; Groups C and D combined, .164.

To be significant from zero at the .01 level, the values had to be as follows: Group A, .310; Group B, .349; Groups A and B combined, .228; Group C, .291; Group D, .304; Groups C and D combined, .215.

These values were appropriate for all tables of correlations presented in this chapter.

Negative correlations with chronological age and self concept were found except in the case of the fourth-grade boys where a moderate positive correlation of .392 was found. This moderate positive correlation brought the correlations for the two groups combined to a positive correlation of .230, still significant from zero. The variability within each of these groups perhaps explains the differences in these relationships. It could logically be expected that a correlation between age and self concept within a narrow range might be negative because younger children could perhaps be brighter and more confident. Over a wider age range, such as that of several grade levels, it would be reasonable to presume that increasing skills and development would promote a positive relationship between age and self concept. The standard deviations for these groups give some support for these contentions, since fourth-grade boys had a standard deviation of 14.7 months as compared with 5.4 for fourth-grade girls. Fourth-grade groups combined had a standard deviation of 11.3. The standard deviations of the sixth-grade groups in chronological age were: boys, 11.2 months; girls, 7.7 months; combined, 9.6 months.

Relationships between self concept and intelligence factors were mostly low to moderately positive. Correlations for fourth-grade boys and sixth-grade boys were significant from zero in a positive direction, ranging from .278 for total I.Q. for fourth-grade boys to .411 for total I.Q. for sixth-grade boys. Non-language I.Q. had a higher relationship with self concept for fourth-grade boys with language I.Q. being most closely related for sixth-grade boys. The relationship for girls was not significant from zero, being positive in the case of fourth-grade girls and very close to zero for the sixth-grade girls. Twelve of the eighteen correlations were significant from zero, all in a positive direction and the median correlation was .255.

Correlations of achievement factors and self concept present a picture similar to that of intelligence: significant positive correlations between achievement and self concept for boys, non-significant correlations for girls. Thirteen of the 14 correlations for boys were significant, ranging from .211, non-significant for self concept and spelling for fourth-grade boys, to .525 for self concept and English for fourth-grade boys. Only one out of 14 correlations for the two girl groups was significantly different from zero, that of .285 with reading comprehension for fourth-grade girls. When the two groups were combined, 13 out of the 14 correlations were significantly positive. When all 49 correlations for the six groups on the six subtests and the total battery were considered, 27 positive correlations were obtained with the median correlation being .292. Analysis of the relationships for subtests indicates that reading comprehension appeared to be most closely related to the self concept since this correlation was the highest in all groups with the exception of the fourth-grade boys where mechanics of English was higher. Although the pattern is not consistent, a typical pattern, that of the combined fourth-grade groups was as follows:

reading comprehension, English, total battery, arithmetic reasoning, reading vocabulary, arithmetic fundamentals, and spelling.

Correlations between self concept and interest factors were mostly negligible. An exception was in the case of fourth-grade girls where all correlations were moderately positive, ranging from .305 for home arts to .444 for art. Sixteen out of 54 correlations were significant from zero with nine of these occurring in relationships for fourth-grade girls. Eighteen correlations were negative including the significantly low negative correlations between self concept and active play for sixth-grade groups combined of -.172, and manual arts of -.181.

Correlations between self concept and manifest anxiety were consistently negative ranging from -.216 for sixth-grade girls to -.458 for sixth-grade boys. All correlations were significant with the exception of that for the sixth-grade girls.

Correlations with Self Ideal Concept

Correlations between self ideal concept and age, intelligence, achievement, interests and manifest anxiety factors are presented in Table 10. No significant relationship appeared between self ideal concept and chronological age. Relationships between self ideal concept and intelligence were moderately positive for all groups except the sixth-grade girls. No correlations were negative and the range was from .093 for non-language I.Q. and self ideal concept for sixth-grade girls to .471 for language I.Q. and self ideal concept for sixth-grade boys. The median r between I.Q. factors and self ideal concept was .327.

Correlations between achievement factors and self ideal concept ranged from -.071 to .577. There were six negative correlations none of which were significant and all but one of which appeared in the case

Table 10

Correlations Between Self-Ideal Concept and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils

Variable	A(65)#	B(60)#	A+B(125)#	C(76)#	D(70)#	C+D(146)#
Chronological Age	078	057	081	-158	042	-104
Intelligence Factors						
Language I.Q.	302*	262*	278**	471**	243	408**
Non-Language I.Q.	417**	289*	363**	358**	093	264**
Total I.Q.	338**	302*	316**	460**	165	358**
Achievement Factors						
Rdg. Vocabulary	393**	003	247**	461**	528**	497**
Rdg. Comprehension	405**	-024	246**	577**	478**	566**
Arith. Reasoning	398**	-059	224*	482**	259*	422**
Arith. Fundamentals	456**	-071	231**	148	-030	116
English	401**	053	263**	513**	496**	541**
Spelling	317**	-021	189*	517**	552**	545**
Total Battery	499**	-032	276**	540**	359**	501**
Interest Factors						
Art	037	-083	024	-062	-087	065
Music	086	-086	053	-128	-073	-003
Social Studies	135	-101	021	-148	-026	-120
Active Play	243	055	109	-135	-069	-166*
Quiet Play	091	022	075	-114	-140	-121
Manual Arts	136	-016	058	-076	-050	-123
Home Arts	-017	-092	-011	-095	-082	010
Science	118	-046	037	-225*	-094	-184*
Total Interest	143	-053	060	-184	-081	-135
Anxiety Factor						
C.M.A. Scale	075	-034	073	-357**	-206	-279**

* Significant at .05 level.
** Significant at .01 level.
# The groups designated by the letters are described in the accompanying text.

Decimals have been omitted.

of the fourth-grade girls. Correlations between achievement and self ideal concept were consistently positive and significant in the case of boys at both grade levels with the exception of the arithmetic fundamentals for sixth-grade boys and all except one (again arithmetic fundamentals) in the case of sixth-grade girls. Only arithmetic fundamentals was non-significant for sixth-grade boys and girls and sixth-grade boys and girls combined. Except for the fourth-grade girls, correlations of achievement factors and self ideal concept tended to be higher than for the self concept. Thirty-two out of 42 correlations were significant from zero and the median correlation was .400.

Correlations between self ideal concept and interest factors were largely negligible. Only three very low negative correlations were significant. These were as follows: science and self ideal concept for sixth-grade boys: -.225; science and self ideal concept for sixth-grade groups combined: -.184; active play and self ideal concept for sixth-grade groups combined: -.166. Nine correlations out of 27 were negative for the fourth-grade groups whereas 24 out of 27 relationships were negative for the sixth-grade groups.

The particular interest test used consisted of a check of items which one likes to do. A low score which suggests less interest may be somewhat misleading since it is apparent that sixth-grade boys and girls score in general lower than do fourth-grade boys and girls. Instead of being less interested, however, this may represent more familiarity and sophistication so that a negative correlation could imply a greater degree of maturity and self-confidence. Stated differently pupils at the sixth-grade level are somewhat more likely to say "no" to a question concerning what they would like to do because their curiosity may have already been satisfied.

Correlations between self ideal concept and the manifest anxiety scale were insignificant except that of -.357 for sixth-grade boys and -.279 for the sixth-grade groups combined.

Correlations With Personal-Social Orientation

Table 11 presents the personal-social orientation and the several factors of age, intelligence, achievement, interest, and manifest anxiety for the several groups.

Correlations between personal-social orientation and age were negative but significant only in the case of fourth-grade boys and fourth-grade groups combined, where they were relatively low and barely significant. In consideration of the greater variability in age of the fourth-grade boys it would appear that there was a slight relationship between greater social orientation for the older boys within the group. This relationship would accord with cultural expectation since increasing sociability seems usually to be a function of increasing age. Perhaps with a wider variability the relationship would be even more apparent.

Only one significant correlation appeared between personal-social orientation and intelligence factors, viz., that of .240 between language I.Q. and personal-social orientation for sixth-grade boys. Although the other 18 correlations were insignificant only three were negative.

Only two correlations significantly different from zero between personal-social orientation and achievement factors were obtained. These were correlations of .237 for reading comprehension and .271 for spelling for sixth-grade boys. Of the 42 correlations presented between

Table 11

Correlations Between Personal-Social Orientation and Age, Intelligence Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils

Variable	A(65)#	B(60)#	A+B(125)#	C(76)#	D(70)#	C+D(146)#
Chronological Age	-245*	-153	-207*	-199	-085	-157
Intelligence Factors						
Language I.Q.	089	122	100	240*	011	152
Non-Language I.Q.	074	-057	001	097	-037	041
Total I.Q.	081	015	053	191	-030	098
Achievement Factors						
Rdg. Vocabulary	-105	008	-071	114	014	090
Rdg. Comprehension	011	-050	-033	237*	015	159
Arith. Reasoning	-056	115	004	137	015	094
Arith. Fundamentals	015	070	038	183	-003	113
English	041	-005	-007	184	023	139
Spelling	-088	023	-058	271*	-044	152
Total Battery	-001	036	-001	221	-073	109
Interest Factors						
Art	032	-201	-126	-126	088	-015
Music	-060	-166	-152	-075	062	016
Social Studies	099	-015	038	-092	-014	-063
Active Play	253*	094	189*	-175	-170	-183*
Quiet Play	-021	044	-007	-112	-063	-091
Manual Arts	214	-003	112	-200	-120	-177
Home Arts	091	058	005	019	-170	-042
Science	079	078	082	-080	-062	-076
Total Interest	123	-092	-011	-128	-094	-111
Anxiety Factor						
C.M.A. Scale	-154	-208	-202*	-409**	-086	-252**

* Significant at .05 level.
** Significant at .01 level.
# The groups designated by the letters are described in the accompanying text.
Decimals have been omitted.

personal-social orientation and achievement factors for six groups, 14 were negative, 11 of these involving the fourth-grade groups, and 28 were positive.

Of the 54 correlations between personal-social orientation and interest, only three were significant from zero and these were very low. All of these involved the active play scale. In the fourth-grade group personally oriented boys seem to be more interested in active play (.253). The correlation for boys and girls combined for the fourth-grade was .189. At the sixth-grade level the very low _r_ of -.183 for sixth-grade groups combined suggests a very slight pattern of greater interest in active play for socially oriented boys. Some indication of the relation between interest patterns and personal-social orientation was suggested by the fact that 11 out of 27 correlations at the fourth-grade level were negative whereas 23 of the 27 were negative at the sixth-grade level. This suggests that in general personally oriented fourth graders may have given more positive responses in slightly greater frequency whereas the reverse was true of the sixth- grade level. Since so many _r_'s were insignificant, this suggestion is purely speculative.

All correlations with the anxiety factors for personal-social orientation were negative. The sixth grade boys and the two combined groups had correlations significantly different from zero. This suggests that the personally self-oriented child tends to have less anxiety.

Correlations with Selected Measures of the Michigan Picture Test

Table 12 presents correlations between the tension index of the _Michigan Picture Test_ and several variables. The tension index is a measure of psychological needs expressed by the examinee with two

Table 12

Correlations Between Tension Index of the Michigan Picture Test and Age, Intelligence, Achievement, Interests, and Manifest Anxiety For Groups of Elementary Pupils

Variable	A(65)#	B(60)#	A+B(125)#	C(76)#	D(70)#	C+D(146)#
Chronological Age	097	-031	058	069	061	068
Intelligence Factors						
Language I.Q.	393**	069	260**	168	316*	203*
Non-Language I.Q.	253*	031	148	134	224	161
Total I.Q.	277*	058	186*	167	290*	201*
Achievement Factors						
Rdg. Vocabulary	274*	276*	270**	146	258*	150
Rdg. Comprehension	452**	240	357**	248*	220	195*
Arith. Reasoning	485**	141	335**	355**	240*	290**
Arith. Fundamentals	137	212	170	109	-045	035
English	371**	138	259**	-293**	238*	190*
Spelling	386**	074	243**	180	121	121
Total Battery	392**	219	310**	254*	244*	212*
Interest Factors						
Art	113	024	070	-036	-098	-100
Music	068	136	098	111	-297*	-223**
Social Studies	175	031	102	-074	-107	-076
Active Play	-067	-111	-092	-033	-035	051
Quiet Play	-107	-118	108	058	-188	039
Manual Arts	-027	-174	-099	-042	037	024
Home Arts	124	-090	026	-094	-093	-134
Science	081	-068	008	-206	-086	-146
Total Interest	081	-020	031	-110	-128	-120
Anxiety Factor						
C.M.A. Scale	-010	-126	-109	-053	-270*	-144

* Significant at .05 level.
** Significant at .01 level.

# The groups designated by the letters are described in the accompanying text.

Decimals have been omitted.

types of needs usually indicative of positive adjustment (love, personal adequacy) and two scales usually indicative of poorer adjustment (extra punitive, submission). This scale provided no significant correlations with chronological age and only one significant correlation with manifest anxiety, a negative correlation for sixth-grade girls. The only significant positive ocrrelations with interest factors were with music scale for sixth-grade girls and for the sixth-grade combined.

All correlations with intelligence factors were positive with language I.Q. correlating positively (.393) with fourth-grade boys, .260 for fourth-grade boys and girls combined, .316 for sixth-grade girls, and .203 for sixth-grade boys and girls combined. Of the 18 correlations between intelligence factors and tension index, nine were significantly positive and the median _r_ was .194.

Twenty-five of the 42 correlations with achievement factors were significant, all positively. The correlations ranged from the significant negative correlation of -.293 for English and tension index for sixth-grade boys to the significantly positive one of .485 between arithmetic reasoning and tension index for fourth-grade boys. All correlations of achievement factors and tension index were significant for the fourth-grade boys except arithmetic fundamentals. The same was true for the fourth-grade groups combined. For sixth-grade girls only reading comprehension and arithmetic fundamentals provided no significant correlations. Forty out of the 42 correlations were positive and the median correlation was .242.

Table 13 presents correlations between the combined maladjustment index of the _Michigan Picture Test_ and the age, intelligence, achievement, interest and manifest anxiety variables. No consistent pattern is evident

Table 13

Correlations Between Combined Maladjustment Index of Michigan Picture Test and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils

Variable	A(65)#	B(60)#	A+B(125)#	C(76)	D(70)	C+D(146)#
Chronological Age	-043	-118	-054	422**	088	284**
Intelligence Factors						
Language I.Q.	308*	032	197*	070	218	142
Non-Language I.Q.	229	018	130	067	120	096
Total I.Q.	147	036	101	073	168	123
Achievement Factors						
Rdg. Vocabulary	239	149	199*	-001	338**	122
Rdg. Comprehension	269*	033	170	127	261*	194*
Arith. Reasoning	201	133	171	199	183	198*
Arith. Fundamentals	143	129	136	-117	-089	-095
English	322**	134	233**	257*	268*	263**
Spelling	176	163	169	073	192	137
Total Battery	268*	130	204	126	262*	197*
Interest Factors						
Art	020	-019	007	025	-041	020
Music	107	069	088	027	-320**	-111
Social Studies	170	-057	056	272*	-153	-076
Active Play	022	-081	-036	-103	011	-065
Quiet Play	-061	-106	-079	012	-109	-047
Manual Arts	-064	-072	-069	013	061	016
Home Arts	023	-057	-054	054	-001	049
Science	-031	-058	-045	219	-172	029
Total Interest	025	-024	002	128	-151	032
Anxiety Factor						
C.M.A. Scale	020	-134	-167	-081	-276*	-181*

* Significant at .05 level.
** Significant at .01 level.

# The groups designated by the letters are described in the accompanying text.

Decimals have been omitted.

for the combined maladjustment index and the several factors. For the fourth-grade boys, the only significant correlations were .308 with language I.Q., .269 with reading comprehension, .322 with English and .268 for the total battery. There were no significant correlations between combined maladjustment index and all of these factors for the fourth-grade girls. For the combined groups low positive correlations between language I.Q., reading vocabulary, and English were found and three significant correlations were apparent for sixth-grade boys: .422 with age, .257 with English, and .272 with social studies on the interest scale. For sixth-grade girls reading vocabulary, reading comprehension, English and total battery were correlated low and positively with combined maladjustment index. A significant negative correlation was found between the combined maladjustment index and musicinterest, and a similar negative correlation between anxiety scale and the maladjustment index was obtained. For the sixth-grade combined, significant low positive correlations were obtained between chronological age, reading comprehension, arithmetic reasoning, English, and total battery. A negative correlation of -.181 significant from zero for the anxiety scale was found.

Table 14 presents correlations between frequency count of the psychosexual references on the Michigan Picture Test and the several age, intelligence, achievement, interest and anxiety variables in which the only pattern which emerged was with language I.Q. and achievement factors for sixth-grade girls. Non-language I.Q. correlated .430 with psychosexual references and total I.Q. .335 and the achievement factors of reading vocabulary, reading comprehension, arithmetic reasoning and English were significantly positive for this group.

Table 14

Correlations Between Psychosexual References on Michigan Picture Test and Age, Intelligence, Achievement, Interests, and Manifest Anxiety for Groups of Elementary Pupils

Variable	A(65)#	B(60)#	A+B(125)#	C(76)#	D(70)#	C+D(146)#
Chronological Age	039	089	070	-022	087	024
Intelligence Factors						
Language I.Q.	189	-143	050	120	185	142
Non-Language I.Q.	026	-153	-068	088	430**	256**
Total I.Q.	108	-155	-001	117	335**	220**
Achievement Factors						
Rdg. Vocabulary	206	161	171	139	246*	158
Rdg. Comprehension	062	064	052	203	250*	202
Arith. Reasoning	182	-062	063	335**	247*	282**
Arith. Fundamentals	-107	024	-045	102	-055	022
English	100	034	053	149	297*	176*
Spelling	297*	-108	088	248*	192	201*
Total Battery	073	034	044	210	225	198*
Interest Factors						
Art	-102	-056	-093	-075	156	009
Music	-074	006	-054	-093	-203	-159
Social Studies	-047	-048	-048	-116	-022	-067
Active Play	-065	-147	-093	-162	013	-056
Quiet Play	-074	-102	-095	-121	146	014
Manual Arts	-067	-199	-129	-164	144	-002
Home Arts	018	-028	-033	-071	195	048
Science	-011	014	-004	-265*	-050	-153
Total Interest	-059	-029	-050	-192	039	-081
Anxiety Factor						
C.M.A. Scale	-256*	-089	-169	-327**	-116	-213*

* Significant at .05 level.
** Significant at .01 level.

# The groups designated by the letters are described in the accompanying text.

Decimals have been omitted.

Other positive correlations were between arithmetic reasoning and psychosexual references for sixth-grade boys and spelling for the fourth-grade boys and sixth-grade boys. Significant negative correlations were obtained between science and psychosexual references for sixth-grade boys and between anxiety and psychosexual references for sixth-grade boys. Although the meaning of these relationships is somewhat nebulous, it may be that the increasing maturity of the sixth-grade girls may have affected the number of psychosexual references; that is to say that these girls may be somewhat more conscious of sexual factors than younger girls.

Table 15 presents correlations between age, intelligence, achievement and anxiety factors with the extra punitive needs subscale of the Michigan Picture Test. Since very few correlations with the interest factors were significant, these have not been reported in the tables. The only significant correlations were negative relationships of sixth-grade boys between extra punitive needs and the interest factors of active play, -.235; quiet play, -.273; manual arts, -.359; science, -.269; and total interest, -.295.

From scrutiny of Table 15, the only significant relationship with age was that of -.440 for fourth-grade girls, and -.268 for fourth-grade boys and girls combined. All correlations were negative, however, suggesting that younger pupils within each age group had greater needs to be aggressive or extra punitive. It is perhaps worthy of note that although no correlations of any consequence or significance with intelligence and achievement factors were obtained for the fourth-grade groups, the scale was quite productive of significant relationships at the sixth-grade level. In fact only one of the correlations for

Table 15

Correlations Between the Extra Punitive Needs Subscale of the Michigan Picture Test and Age, Intelligence, Achievement, and Manifest Anxiety for Selected Groups of Elementary Pupils

Variables	A	B	A+B	C	D	C+D
Chronological Age	-229	-440**	-268**	-146	-189	-157
Intelligence Factors						
Language I.Q.	034	148	079	228*	351**	255**
Non-Language I.Q.	-128	094	-029	196	250*	209*
Total I.Q.	012	131	059	236*	314**	253**
Achievement Factors						
Rdg. Vocabulary	034	068	027	239*	447**	268**
Rdg. Comprehension	060	106	055	372**	402**	336**
Arith. Reasoning	155	095	108	355**	343**	328**
Arith. Fundamentals	-009	041	011	241*	148	186*
English	-080	200	021	302**	341**	253**
Spelling	085	076	050	338**	297*	280**
Total Battery	012	100	031	361**	312**	300**
Anxiety Factor						
C.M.A. Scale	139	-096	-016	-294**	176	-215**

* Significant at .05 level
** Significant at .01 level

intelligence was not significant at the sixth-grade level and only one correlation with achievement factors at this grade level was not significant. All relationships were positive ranging from a non-significant _r_ of .148 between arithmetic fundamentals and extra punitive needs for sixth-grade girls to .447 for reading vocabulary and extra punitive needs for sixth-grade girls. Although the precise meaning of these patterns of relationships is not clear, it suggests that some of these extra punitive or aggressive needs may be translated at this level into constructive achievement. It could also be interpreted that those persons in greater need for expression may not be so lazy and self-satisfied.

The pattern which was obtained between extra punitive needs and the other factors is almost reversed in Table 16 which reports relationships between the personal adequacy needs subscale of the _Michigan Picture Test_. Personal adequacy needs correlated positively with chronological age with fourth-grade boys and fourth-grade boys and girls combined. All other relationships were nonsignificant from zero. At the sixth-grade level, however, all correlations between language factors and achievement factors and personal adequacy needs are negative from -.172 for arithmetic fundamentals for sixth-grade boys to -.470 for English and sixth-grade girls. The median relationship between personal adequacy needs and intelligence factors was -.251. The median I.Q. for sixth-grade groups between achievement factors and personal adequacy needs was -.352. Only two intelligence factors and two achievement factors again arithmetic fundamentals were not significant with this variable. The manifest anxiety correlated significantly and positively for sixth-grade boys and sixth-grade girls combined.

Table 16

Correlations Between the Personal Adequacy Subscale of the Michigan Picture Test and Age, Intelligence, Achievement and Manifest Anxiety for Selected Groups of Elementary Pupils

Variables	A	B	A+B	C	D	C+D
Chronological Age	363**	101	229**	-037	121	026
Intelligence Factors						
Language I.Q.	078	040	055	-236*	-321**	-272*
Non-Language I.Q.	247	122	175*	-222	-205	-214*
Total I.Q.	062	094	071	-254*	-251*	-252**
Achievement Factors						
Rdg. Vocabulary	078	149	110	-278*	-469**	-329**
Rdg. Comprehension	073	064	068	-372**	-400**	-371**
Arith. Reasoning	-012	116	052	-319**	-315**	-314**
Arith. Fundamental	158	107	127	-172	-198	-182*
English	132	157	144	-293**	-470**	-338**
Spelling	045	090	070	-381**	-400**	-378**
Total Battery	164	132	144	-352**	-397**	-363**
Anxiety Factor						
C.M.A. Scale	097	056	075	324**	132	225**

* Significant at .05 level
** Significant at .01 level

Table 17 presents correlations between age, intelligence, achievement and anxiety factors with the total verb count of the Michigan Picture Test. This measure could be considered a measure of loquacity or talkativeness since it was a frequency count of the number of verbs expressed. No correlations with chronological age were significant and for the anxiety factor only the negative correlation of -.277 for sixth-grade boys and -.194 for sixth-grade boys and girls combined were significant. Eleven of the 18 intelligence correlations were slightly positive including all correlations for the sixth-grade groups. Except for the fourth-grade girls, correlations were rather consistently in the neighborhood of .300 to .400 and the median correlation with I.Q. was .304.

Except for fourth-grade girls, positive correlation was found between the total verb count and achievement variables. Highest correlations were obtained in the reading comprehension subscale with arithmetic reasoning and total battery next. A relatively high correlation was found for sixth-grade girls in mechanics of English. There were no significant correlations between total verb count and arithmetic fundamentals. Correlations ranged from insignificant negative -.001 for fourth-grade girls between total verbs and spelling and .449 for sixth-grade boys in reading comprehension. The median correlation for achievement variables was .271.

Intercorrelations of Self Concept and Related Variables

Table 18 presents intercorrelations between self concept, self ideal concept, personal-social orientation, tension index and combined maladjustment scale. Self concept was positively related to self ideal concept except in the case of fourth-grade girls. Highest correlation

Table 17

Correlations Between the Total Number of Verbs Subscale of the Michigan Picture Test and Age, Intelligence, Achievement and Manifest Anxiety for Selected Groups of Elementary Pupils

Variables	A	B	A+B	C	D	C+D
Chronological Age	090	021	056	013	061	033
Intelligence Factors						
Language I.Q.	365**	-116	168	304**	406**	335**
Non-Language I.Q.	222	-082	070	279*	376**	320**
Total I.Q.	284*	-096	128	325**	409**	356**
Achievement Factors						
Rdg. Vocabulary	209	188	187*	266*	401**	283**
Rdg. Comprehension	276*	127	198*	449**	378**	381**
Arith. Reasoning	403**	031	229**	428**	348**	376**
Arith. Fundamentals	095	080	086	209	081	140
English	182	064	110	351**	418**	324**
Spelling	321**	-001	157	336**	282*	283**
Total Battery	269*	098	144	403**	351**	350**
Anxiety Factor						
C.M.A. Scale	-126	-089	-114	-277*	-120	-194*

* Significant at .05 level
** Significant at .01 level

Table 18

Intercorrelations of Selected Measures of Self Concept and Related Variables for Several Groups of Elementary Pupils

Variables	A	B	A+B	C	D	C+D
Self Concept with Self Ideal Concept	311**	-037	196*	496**	241*	449**
Self Concept with Personal-Social Orientation	014	027	-017	158	-072	080
Self Concept with Tension Index	276*	-064	154	142	-089	014
Self Concept with Combined Maladjustment Scale	169	-180	028	176	123	165
Self Ideal with Personal-Social Orientation	155	022	073	194	-092	112
Self Ideal with Tension Index	298*	123	214*	060	174	060
Self Ideal with Combined Maladjustment Scale	164	-178	002	138	403**	231**
Personal-Social Orientation with Tension Index	-037	-135	-108	-128	117	-042
Personal-Social Orientation with Combined Maladjustment Scale	031	-029	-002	-121	000	-062
Tension Index and Combined Maladjustment Scale	248*	456**	352**	307**	357**	313**

* Significant at .05 level
** Significant at .01 level

was obtained for sixth-grade boys of .496. The only other significant correlation involving self concept was with the tension index for fourth-grade boys. Self ideal concept was positively related with tension index for fourth-grade boys and fourth-grade groups combined and also positive for combined maladjustment scale for sixth-grade girls and the sixth-grade groups combined. A positive significant correlation was obtained for all six groups between the tension index and combined maladjustment scale. They ranged from .248 for fourth-grade boys to .456 for fourth-grade girls. No significant correlations in the entire table were found for the personal-social orientation.

Differences in Correlations

Hypotheses 9 through 12 referred to differences in relationships of self concept and related variables for the several subgroups. Hypothesis 9 concerned differences in relationships between fourth-grade boys and fourth-grade girls. Hypothesis 10 referred to differences in correlations between sixth-grade boys and sixth-grade girls. Hypothesis 11 concerned differences in correlations between fourth-grade boys and sixth-grade boys and Hypothesis 12 relates to differences between fourth-grade girls and sixth-grade girls.

In order to determine the significance of the differences for these variables it was necessary to make a transformation to the Fisher's z-function. Since the standard error of this statistic is a function only of the number in the sample, it was possible to compute the necessary standard errors, then use these values to derive the standard error of the difference between two z-values. This standard error of the difference may then be multiplied by the value associated with the desired level of confidence to determine the minimum difference which may be considered to be significant. By this means the standard errors of the differences in Fisher's z-function for the four groups were determined as follows: For Hypothesis 9: Groups A and B (fourth-grade boys and fourth-grade girls): the standard error of Fisher's z was equal to .183. Hypothesis 10: (Groups C and D): standard error of Fisher's z was equal to .169. Hypothesis 11: (Groups A and C): the standard error of the z function was equal to .173 and for Groups B and D (Hypothesis 12) standard error was equal to .180. If we accepted the five per cent level of confidence as our criterion for a significant difference in correlations, we would then multiply each of the values mentioned in the preceding section by 1.96 and arrive at minimum values appropriate for considering differences in the Fisher's z-function which would indicate a significant difference. Following this procedure gave us values as follows: Groups A and B (Hypothesis 9), .359; Groups C and D (Hypothesis 10), .331; Groups A and C (Hypothesis 11), .339; Groups B and D (Hypothesis 12), .353.

To employ this test precisely, it was necessary to transform coefficients of correlation into the Fisher's z-functions, subtract the resulting values, and divide by the standard error of the difference in the Fisher z-function. Correlations below .25 are essentially equal to the corresponding Fisher z-function and there is little difference in the two values when the coefficient of correlation is .40 or below. Since most of the correlations obtained in this study were low and since in most instances they are obviously not greatly different from one another, an exact computation of these differences in every instance has not been made. An inspection of tables of correlations in Tables 9 through 17 indicated that in most instances differences in correlations for the several groups were not significant. A few exceptions to this generalization involving self concepts and several other factors should perhaps be mentioned. Differences in intelligence factors and self concept for sixth-grade boys and sixth-grade girls were greater than chance expectancy. There appeared also to be a significant difference in the relationships between chronological age and self concept for the fourth-grade boys as compared with the fourth-grade girls. Self concept and mechanics of English was significantly correlated for fourth-grade boys and not for fourth-grade girls, and the difference appeared to be significant from zero. Some of the relationships between interest factors and self concept for fourth-grade boys and fourth-grade girls were apparently significant from zero especially in active play, quiet play, and science. Also fourth-grade boys differed significantly from sixth-grade boys in the relationship between self concept and chronological age. It will be recalled that this difference was occasioned because fourth-grade boys had a positive correlation between chronological age and self concept which was different from the relation was for the other three groups. The relationship between self concept and interest for fourth-grade girls was different from that of sixth-grade girls. Fourth-grade girls had moderately positive relationships between interest factors and self concept but the correlation between these variables for sixth-grade girls was negligible. Although there were differences in correlations between self concept and achievement for sixth-grade girls as compared with fourth-grade girls and sixth-grade boys, the negligible correlations for the sixth-grade girls were distinctively different from the significant positive correlations for the other groups.

An analysis of the correlations reported in Table 10 for self ideal concept and achievement variables indicated that the fourth-grade girls showed unique patterns. Significant positive correlations with self ideal concept were characteristic of most of the intelligence and achievement factors for the fourth-grade boys, sixth-grade girls and sixth-grade boys, whereas fourth-grade girls had no significant _r_'s for the achievement variables. From Table 11 no patterns were discernible of relationships or differences in relationships of personal-social orientation and the various factors analyzed.

Except for reading vocabulary and arithmetic fundamentals, correlations between tension index and intelligence and achievement factors were noticeably higher for fourth-grade boys than for fourth-grade girls. Some of these differences were apparently significant (spelling arithmetic reasoning, language I.Q.). None of the differences in correlations among the other groups involving the _Michigan Picture Test_ variables appeared to be significant, with the possible exceptions of non-language I.Q. for the sixth-grade groups and psychosexual references (Table 14).

Frequency Distributions of Child Self Description Scale for Fourth- and Sixth-Grade Boys and Girls

Hypotheses 13 through 17 concerned the way in which elementary pupils described themselves on the _Child's Self Description Scale_ devised by Carlson (see Appendix). This instrument more fully described in Chapter 3 required that respondents indicate which of five prepared statements he or she considered to be _most_ like him or her and which statement or option was _least_ characteristic of him or her. The options set definite limits on the number and appropriateness of the choices and in some instances, particularly in the choices of occupations for girls in Pentad 2 the available choices were far short of what children may have wished as options. Nonetheless, it was considered that within these limitations, the first choices and last choices would throw much light on the way children view themselves.

Hypothesis 13 stated that pupils will make an equal proportion of choices for the five options in describing what is most characteristic and what is least characteristic of them. This hypothesis had eight subhypotheses by grade and by sex for each of five option sets of 19 pentads. Hypothesis 14 concerned the similarity of self description choices (most and least characteristic) made by fourth-grade girls and fourth-grade boys, while Hypothesis 15 related to similarity of choices (most and least characteristic) of sixth-grade girls and boys. Hypotheses 16 and 17 pertained to similarity of choices by grade of boys and girls respectively. The frequency distributions of choices and the tests of these five major hypotheses (with related subhypotheses) are presented in a series of 19 tables corresponding to the 19 pentads included in the Child's Self Description Scale. The numbers within the cells of each category indicate the frequency of choice of each option. It may be noted that the samples at the sixth-grade level are larger. This resulted from the fact that the basis for analysis of the sixth-grade groups was the entire group of students who were tested including some students who did not take the Michigan Picture Test. A very careful and precise inspection indicated that the subsamples of 76 boys and 70 girls were so nearly like the larger groups that it would be unnecessary to make an additional series of chi-square tests. Stated differently, the four groups even though different in size may be regarded as quite comparable and random samples of fourth- and sixth-grade pupils in the Clarke County, Georgia schools and in comparable school populations.

The level of significance agreed upon as basis for rejection of the null hypotheses involved was the .05 level. At this level with four degrees of freedom, the chi-square value to be significant from hypothetically expected frequency must equal 9.488. The corresponding value for the .01 level is 13.277. The greater the value of chi-square, the greater is the divergence from hypothetically expected frequency. In the following discussion, only an occasional mention of the precise value of chi-square has been made. The main concern has been whether or not the hypothesis has been stustantiated or refuted.

Table 19 describes the first and last choices of the groups on the first question which concerned the favorite school subject. All the groups except the sixth-grade boys made choices of most liked subjects which was different from chance expectancy, and all four groups had least-liked subjects significantly different from chance. Fourth-grade boys indicated a preference for arithmetic and art and indicated reading and arithmetic as least liked subjects. (Obviously the same boys did not choose arithmetic as most-liked and least-liked, but arithmetic was likely to be chosen as preferred or not preferred by most fourth-grade boys. In other words, they were favorable or unfavorable rather than neutral to this subject.) Fourth-grade girls chose art and arithmetic as most-liked and science as least-liked most frequently. Sixth-grade boys liked history and arithmetic least, while sixth-grade girls preferred art and reading most frequently and science least frequently. The hypotheses of no sex differences were confirmed except for the fourth-grade least-liked category; at this level, girls' aversion to science compared to boys' disinclination to reading and arithmetic. The only grade difference which was significantly different from chance expectancy was that of fourth-grade boys and sixth-grade boys in the

Table 19

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad One of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 1: Which of these is your favorite school subject? Which one do you like least?

1. **reading**
2. **arithmetic**
3. **history**
4. **science**
5. **art**

Group	First Choice (Most Like) 1	2	3	4	5	Omit	Total
Fourth Boys	7	19	7	11	17	2	63
Fourth Girls	9	18	2	4	25	1	59
Sixth Boys	27	29	24	24	37	11	152
Sixth Girls	41	32	20	16	42	7	158

Group	Last Choice (Least Like) 1	2	3	4	5	Omit	Total
Fourth Boys	22	21	6	6	6	2	63
Fourth Girls	11	11	12	21	3	1	59
Sixth Boys	20	37	39	20	25	11	152
Sixth Girls	14	39	33	46	19	7	158

Equal Likelihood Hypothesis:	Most Like	Least Like
Fourth Boys	20.9**	14.8*
Fourth Girls	63.8**	17.3**
Sixth Boys	4.1	12.0*
Sixth Girls	18.7**	23.9**

Boy-Girl Hypothesis:	Most Like	Least Like
Fourth Grade	7.77	18.06**
Sixth Grade	8.77	3.49

Grade Hypothesis:	Most Like	Least Like
Boys	6.55	11.74*
Girls	15.50**	4.70

* Significant at .05 level.
** Significant at .01 level.

least-liked subject dimension; while reading and arithmetic were mentioned most by fourth-grade boys, history and arithmetic were in the one and two order for sixth-grade boys. Also art seemed to be less frequently selected by fourth-grade boys as least-liked.

The corresponding patterns of choices and tests of significance from chance expectancy for Pentad 2 which concerned proposed vocational choices are presented in Table 20. This set of choices provided highly significant differences from chance expectancy in every category except sixth-grade boys least-liked and most of the sex and grade hypotheses were significant. Boys at both grade levels expressed a very strong desire to be scientists and engineers, with actor being their least-liked vocational choice. These choices were so nearly alike that the grade differences were not significant. Girls at both levels chose actor (that is, actress) most frequently and indicated engineer and scientist as least-liked vocations. The secondary choices of the fourth- and sixth-grade girls were of such a nature that the hypotheses of grade differences for most- and least-liked vocations were rejected for the girls. Thus, fourth-grade girls liked the actor (actress) category so very much that the categories of reporter and office manager were chosen much less frequently in proportion than at the sixth-grade level, where choices appeared to be more realistic. As has been previously indicated, the available choices for girls was severely limited, since the vocations available for choice are not those usually expected for women in high percentages. All hypotheses related to sex differences were rejected to a highly significant degree as indicated by the substantial chi-square values.

Table 21 indicated choices and chi-square values for Pentad 3 which related to items which the pupils expected to do later on in life. This

Table 20

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Two of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 2: Which of these would you most like to be when you are older? Which least?

6. scientist
7. reporter
8. office manager
9. actor
10. engineer

Group	First Choice (Most Like)						
	6	7	8	9	10	Omit	Total
Fourth Boys	29	10	6	5	12	1	63
Fourth Girls	7	8	5	37	1	1	59
Sixth Boys	61	10	23	17	29	12	152
Sixth Girls	38	20	26	66	1	7	158

Group	Last Choice (Least Like)						
	1	2	3	4	5	Omit	Total
Fourth Boys	6	11	8	21	16	1	63
Fourth Girls	16	14	7	3	18	1	59
Sixth Boys	27	31	19	40	23	12	152
Sixth Girls	55	12	9	18	57	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	46.1**	17.3**
Fourth Girls	139.3**	35.9**
Sixth Boys	55.7**	9.3
Sixth Girls	68.6**	74.6**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	47.37**	18.48**
Sixth Grade	27.79**	27.45**

Grade Hypothesis	Most Like	Least Like
Boys	1.93	4.70
Girls	11.58*	14.91**

* Significant at .05 level.
** Significant at .01 level.

Table 21

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Three of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 3: Here are some things which many of you will expect to do later on. Which is most important to you? Which least?

11. go to college
12. get married someday
13. get a job right after high school
14. travel a lot
15. make a great deal of money

Groups	First Choice (Most Like) 11	12	13	14	15	Omit	Total
Fourth Boys	38	6	5	5	7	2	63
Fourth Girls	36	12	4	0	5	2	59
Sixth Boys	89	17	13	5	17	11	152
Sixth Girls	103	33	7	2	5	8	158

Group	Last Choice (Least Like) 1	2	3	4	5	Omit	Total
Fourth Boys	7	18	20	7	9	2	63
Fourth Girls	7	5	18	16	11	2	59
Sixth Boys	8	33	53	35	12	11	152
Sixth Girls	9	9	64	40	28	8	158

Equal Likelihood Hypothesis:	Most Like	Least Like
Fourth Boys	151.9**	14.9**
Fourth Girls	170.3**	15.6**
Sixth Boys	167.3**	48.0**
Sixth Girls	242.5**	71.4**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	7.37	11.05*
Sixth Grade	10.35*	10.77*

Grade Hypothesis	Most Like	Least Like
Boys	2.54	6.04
Girls	2.48	11.53*

* Significant at .05 level.
** Significant at .01 level.

pentad suggested a relative sense of values in terms of goals which the individual may be expected to have. All sets of choices, most and least characteristic were significant from chance expectancy. In the most important category, all groups expected to "go to college." In this respect, the distribution of choices of "most important" of fourth-grade boys was like fourth-grade girls, and did not differ from sixth-grade boys. The patterns of choices of fourth-grade girls was like that of sixth-grade boys. The only boy-girl or grade hypothesis significant from chance in the "most important" category involved the sixth-grade boys and girls. Although both groups chose going to college as most important, girls in much greater proportion than boys indicated "get married someday," boys felt "make a great deal of money" and "get married someday" were next most important, and boys chose "get a job right after high school" nearly twice as frequently as girls.

In the "least important" patterns of choices, the distributions were similarly significantly different from chance; the boy-girl hypotheses were rejected and the grade hypothesis was rejected for girls. Thus boys and girls at both grade levels indicated getting a job right after high school as being least important in greatest numbers with "travel a lot" being next "least important" for all except fourth-grade boys, who chose "get married someday" as next in order of frequency.

Self descriptions of physique and temperament are presented in Table 22 which refers to Pentad 4. All self descriptions varied significantly from the hypothesis of equal likelihood, and boys at the fourth- and sixth-grade levels saw themselves differently from girls in the "most like" category of choice. Girls at the two grade levels differed in the "least like" category. Boys at both grade levels saw themselves as "quick and active" most frequently, with "strong, solid build" as

Table 22

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Four of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 4: Which one of these things tells most what you are like? Which one is least like you?

16. look older than my age
17. slow-moving, easy-going
18. small, delicate build
19. strong, solid build
20. quick and active.

Group	First Choice (Most Like)						
	16	17	18	19	20	Omit	Total
Fourth Boys	13	9	3	14	23	1	63
Fourth Girls	11	5	12	3	27	1	59
Sixth Boys	13	14	7	46	59	13	152
Sixth Girls	40	12	17	19	63	7	158

Group	Last Choice (Least Like)						
	16	17	18	19	20	Omit	Total
Fourth Boys	21	17	14	2	8	1	63
Fourth Girls	16	11	12	11	8	1	59
Sixth Boys	50	32	38	8	11	13	152
Sixth Girls	47	31	46	14	13	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	56.0**	36.6**
Fourth Girls	56.4**	15.0**
Sixth Boys	77.2**	46.4**
Sixth Girls	59.7**	36.1**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	14.03**	8.22
Sixth Grade	18.61**	5.10

Grade Hypothesis	Most Like	Least Like
Boys	5.40	2.28
Girls	3.08	10.51*

* Significant at .05 level
** Significant at .01 level

second-choice. "Look older than my age" was considered as "least like" for boys at both grade levels in greatest proportions. Girls similarly chose "quick and active" most frequently, but second choices varied by grade levels with a substantial proportion of girls describing themselves as "look older than my age." In the "least like" categories, while "look older than my age" was chosen most frequently by girls at both grade levels, the sixth-grade girls chose "small, delicate build" much more frequently than did fourth-grade girls; in fact, it lacked only one choice being as frequent as did "look older than my age."

Table 23 presents the pattern of choices and the chi-square values for testing hypotheses related to Pentad 5 which relates to a series of personality characteristics or traits. All equal likelihood hypotheses were rejected, but the hypotheses of no sex differences and no grade differences were confirmed. Thus, boys at both grade levels thought of themselves most frequently as "good at sports" and considered the characteristics least like them of "usually a leader in groups," "good looking," and "good in school work." Girls also chose "good at sports" most frequently at both grade levels with "good in school work" as second choice in both instances. Girls saw themselves as least like "good looking" and "usually a leader in groups," although fourth-grade girls also chose "good in school work" about as frequently as the other two. Boy-girl differences in the "least like" category approached significance at the sixth-grade level, mostly because so many more girls chose "good looking" while boys chose "good at school work" as being least characteristic of them.

Another set of personality traits and behavioral characteristics are involved in Pentad 6, the distributions of choices and the indepen-

Table 23

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Five of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 5: Which of these things tells most what you are like? Which one is least like you?

21. good at sports
22. good looking
23. know how to do interesting things
24. usually a leader in groups
25. good in school work

Group	First Choice (Most Like)						
	21	22	23	24	25	Omit	Total
Fourth Boys	34	3	11	4	10	1	63
Fourth Girls	24	3	9	3	19	1	59
Sixth Boys	76	18	25	6	14	13	152
Sixth Girls	61	16	17	10	47	7	158

Group	Last Choice (Least Like)						
	21	22	23	24	25	Omit	Total
Fourth Boys	9	18	7	13	15	1	63
Fourth Girls	8	16	5	14	15	1	59
Sixth Boys	11	24	18	45	41	13	152
Sixth Girls	17	46	26	43	19	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	104.8**	19.5**
Fourth Girls	56.1**	25.5**
Sixth Boys	111.3**	31.0**
Sixth Girls	66.7**	24.2**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	4.73	.41
Sixth Grade	5.22	9.46

Grade Hypothesis	Most Like	Least Like
Boys	7.51	4.18
Girls	3.29	5.10

* Significant at .05 level
** Significant at .01 level

dence tests of which are given in Table 24. In the "most like" choices, all hypotheses of equal likelihood were rejected, and the boy-girl distributions or patterns of choice at the two grade levels were significantly different from each other. The hypothesis that boys at the two grade levels would have similar patterns of choice was confirmed. Thus, boys chose "willing to take chances" as most like them at both grade levels. Girls at the fourth-grade level cited "know many people" as first choice, with the sixth-grade girls choosing "polite and courteous" as being most like them in greatest proportions. The patterns of "least like" choices were significantly different from equal likelihood expectancy except for fourth-grade boys. Boys at the two grade levels differed from each other, and boys differed from girls at both grade levels. The girls had approximately the same distribution at the two grade levels; that is the pattern did not differ from chance expectancy. Fourth-grade boys saw themselves as least like "can make people laugh" most frequently, with sixth-grade boys choosing "have a good imagination" as least like them. Girls at both grade levels chose "willing to take chances" as least like them.

Table 25 gives frequency distributions and chi-square values for the independence tests related to choices in Pentad 7 which concerns additional personality and behavioral characteristics. The equal likelihood hypotheses in both "most like" and "least like" categories were rejected, with the boy-girl and grade differences hypotheses confirmed except in the case of the "least like" for fourth- and sixth-grade girls. Thus boys and girls at both grade levels saw themselves most frequently as being "lively, full of fun" and least frequently as "make up my mind quickly." The significance of the least choice for girls

Table 24

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Six of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 6: Which of these things tells most what you are like? Which one is least like you?
26. have a good imagination
27. can make people laugh
28. willing to take chances
29. know many people
30. polite and courteous

Group	First Choice (Most Like)						
	26	27	28	29	30	Omit	Total
Fourth Boys	15	11	22	8	6	1	63
Fourth Girls	14	12	3	18	11	1	59
Sixth Boys	23	25	53	16	19	16	152
Sixth Girls	21	31	17	30	52	7	158

Group	Last Choice (Least Like)						
	26	27	28	29	30	Omit	Total
Fourth Boys	10	19	10	8	15	1	63
Fourth Girls	14	11	21	7	5	1	59
Sixth Boys	47	26	23	26	14	16	152
Sixth Girls	34	34	66	14	3	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	25.1**	5.9
Fourth Girls	12.9*	29.9**
Sixth Boys	32.4**	21.6**
Sixth Girls	24.3**	76.6**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	19.72**	11.65*
Sixth Grade	18.07**	17.27**

Grade Hypothesis	Most Like	Least Like
Boys	1.94	11.99*
Girls	9.96	6.73

* Significant at .05 level
** Significant at .01 level

Table 25

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Seven of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 7: Which of these things tells most what you are like? Which one is least like you?

31. lively, full of fun
32. friendly and helpful
33. have good ideas
34. dependable and serious
35. make up my mind quickly

Group	First Choice (Most Like)						
	31	32	33	34	35	Omit	Total
Fourth Boys	24	9	15	5	7	3	63
Fourth Girls	20	16	6	7	8	2	59
Sixth Boys	60	27	17	16	19	13	152
Sixth Girls	61	46	10	19	15	7	158

Group	Last Choice (Least Like)						
	31	32	33	34	35	Omit	Total
Fourth Boys	4	3	11	10	32	3	63
Fourth Girls	7	3	11	7	29	2	59
Sixth Boys	9	4	32	20	74	13	152
Sixth Girls	11	0	39	10	91	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	41.4**	92.2**
Fourth Girls	36.0**	92.3**
Sixth Boys	49.3**	112.7**
Sixth Girls	65.0**	180.9**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	6.51	1.42
Sixth Grade	6.01	4.73

Grade Hypothesis	Most Like	Least Like
Boys	2.23	1.77
Girls	6.32	11.11*

* Significant at .05 level
** Significant at .01 level

derives mainly from the total absence for sixth-grade girls of the choice "friendly and helpful."

Pentad 8 presented five additional personality or behavioral characteristics related to carefulness, excitement, memory, persistence, and gullibility. Table 26 provides frequency distributions and chi-square values for testing independence of the several frequency distributions. All equal likelihood hypotheses were rejected in both the "most like" and "least like" choices. The null hypotheses concerning sex and grade differences were confirmed with the exception of the "most like" choices of sixth-grade girls as compared with sixth-grade boys. The patterns for all groups except sixth-grade girls indicated that "sticking to a job until it is finished" is most characteristic, with sixth-grade girls choosing "get very excited about things" most frequently. Last choices among the options for fourth-grade boys and sixth-grade girls was "cannot be fooled easily" with "have a good memory" a close second, while sixth-grade boys chose "get very excited about things" as most frequently not characteristic of them.

The choices available in the eleven pentads from 9 to 19 provided for a series of personally-oriented activities (those involving primarily the individual himself without other individuals being actively involved) and socially-oriented activities (those requiring some social interaction of the individual with other persons). Among the five choices, there was at least one personal or one social activity within each pentad, and the usual variation was two or three such activities. (For example, Pentad 9 involved two personal, numbers 42 and 45 and three social, numbers 41, 43, and 44.) Table 27 gives the frequency count and chi-square values for the choices available in Pentad 9. All equal likelihood hypotheses for both most and least like choices were rejected. Pupils

Table 26

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Eight of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 8: Which of these things tells most what you are like? Which one is least like you?

36. stick to a job until it's finished
37. get very excited about things
38. always neat and careful
39. cannot be fooled easily
40. have a good memory

Group	First Choice (Most Like)						
	36	37	38	39	40	Omit	Total
Fourth Boys	19	18	4	6	15	1	63
Fourth Girls	19	13	11	3	11	2	59
Sixth Boys	57	15	14	23	29	14	152
Sixth Girls	35	42	27	17	30	7	158

Group	Last Choice (Least Like)						
	36	37	38	39	40	Omit	Total
Fourth Boys	10	11	4	19	18	1	63
Fourth Girls	13	8	5	18	13	2	59
Sixth Boys	20	37	14	34	33	14	152
Sixth Girls	25	33	11	50	32	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	19.8**	10.8*
Fourth Girls	34.4**	30.8**
Sixth Boys	44.6**	14.5**
Sixth Girls	11.5*	26.5**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	5.49	1.60
Sixth Grade	21.86**	2.51

Grade Hypothesis	Most Like	Least Like
Boys	8.92	1.05
Girls	7.92	1.23

* Significant at .05 level
** Significant at .01 level

Table 27

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Nine of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 9: Which of these tells most what you are like? Which one is least like you?

41. I usually go up to talk to a new pupil at school.
42. I'm pretty sure of what I want to do when I'm older.
43. I'm usually chosen to be in school plays and programs.
44. I get along with my teachers better than most kids do.
45. I'm usually the one who thinks up new games and things to do.

Group	First Choice (Most Like)						
	41	42	43	44	45	Omit	Total
Fourth Boys	16	28	8	7	2	2	63
Fourth Girls	19	23	9	5	2	1	59
Sixth Boys	26	70	15	17	10	14	152
Sixth Girls	57	61	11	20	2	7	158

Group	Last Choice (Least Like)						
	41	42	43	44	45	Omit	Total
Fourth Boys	11	9	13	12	16	2	63
Fourth Girls	5	12	19	9	13	1	59
Sixth Boys	24	16	30	24	44	14	152
Sixth Girls	17	34	22	18	60	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	94.4**	9.7*
Fourth Girls	51.2**	12.2*
Sixth Boys	86.3**	15.8**
Sixth Girls	97.2**	42.8**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	1.06	4.47
Sixth Grade	11.62*	5.13

Grade Hypothesis	Most Like	Least Like
Boys	3.34	1.14
Girls	4.57	6.85

* Significant at .05 level

** Significant at .01 level

had definite preferences and aversions. The sex and grade hypotheses of no differences, however, were confirmed except in the case of sixth-grade girls and sixth-grade boys, who described themselves differently. First choice as most characteristic for all four groups was "I'm pretty sure of what I want to do when I'm older," although for sixth-grade girls a strong second choice was "I usually go up to talk to a new pupil at school." Last choices were not so nearly unanimous, although "I'm usually the one who thinks up new games and things to do at school" was the most popular choice as least characteristic for all groups except the fourth-grade girls who chose "I'm usually chosen to be in school plays and programs." The major source of divergence which resulted in rejection of the null hypothesis of "most like" for sixth-grade boys and sixth-grade girls was apparently in the much greater frequency of "I usually go up to talk to a new pupil at school."

Pentad 10 related to such items as trying new games at parties, getting nervous in talking to teachers, being nice to people one doesn't like, learning important things at school, and caring for team games. The data related to choices in this five-option set are provided in Table 28. The equal-choice hypothesis was again rejected for most characteristic self description. The boys and girls had definite preferences. However, no clear-cut choice was indicated in the instance of "least characteristic" descriptions; no definite avoidance or disinclination tendencies were indicated. Likewise, boys did not see themselves as essentially different from girls in this set of choices (at both grade levels), and boys did not differ from boys nor girls from girls at the two grade levels. A clear-cut preference for "It's hard to be nice to people I don't like" was evident in the case of boys at both grade levels, and this option

Table 28

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Ten of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 10: Which one of these tells most what you are like? Which one is least like you?

46. I don't like to have to try new games at parties.
47. I get nervous when I talk to teachers.
48. It's hard to be nice to people I don't like.
49. I don't think we learn very important things in school
50. I don't care much for team games.

Group			First Choice (Most Like)				
	46	47	48	49	50	Omit	Total
Fourth Boys	12	13	21	7	9	1	63
Fourth Girls	5	23	15	3	12	1	59
Sixth Boys	24	38	57	7	13	13	152
Sixth Girls	21	51	53	8	18	7	158
Group			Last Choice (Least Like)				
	46	47	48	49	50	Omit	Total
Fourth Boys	20	14	8	10	10	1	63
Fourth Girls	18	12	12	6	10	1	59
Sixth Boys	35	23	23	31	27	13	152
Sixth Girls	41	27	37	22	24	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	25.5**	8.9
Fourth Girls	31.8**	5.4
Sixth Boys	58.4**	3.9
Sixth Girls	55.6**	9.2
Boy-Girl Hypothesis	**Most Like**	**Least Like**
Fourth Grade	8.56	1.93
Sixth Grade	3.91	6.66
Grade Hypothesis	**Most Like**	**Least Like**
Boys	4.50	2.82
Girls	5.70	.34

* Significant at .05 level
**Significant at .01 level

was also first for sixth-grade girls. For the latter group, however, "I get nervous when I talk to teachers" was almost as prevalent (51 as compared with 53), and this response (getting nervous in talking to teachers) was indicated as most characteristic of fourth-grade girls, with "hard to be nice to people I don't like" as second choice.

Very definite preferences and disinclinations are indicated in the choices in Pentad 11, the data of which are given in Table 29. First choice as "most like" for the two boy groups was "I like to run and play hard;" the distribution of first choices for these groups was not significant from chance expectancy. First choices for the two girl groups was "I usually pick out my own clothes;" the other choices for girls were sufficiently different, however, to reject the hypothesis of no differences between the two girl groups. (It was barely significant, however.) All groups selected the option "I like to sing or speak in front of people" as being their first choice as least characteristic of them. The distributions of the other choices were of such a nature as to reject the hypothesis of boys and girls like each other at the sixth-grade level, fourth-grade boys like sixth-grade boys, and fourth-grade girls like sixth-grade girls. (Fourth-grade boys and fourth-grade girls had essentially similar responses.) The preference for running and playing, and aversion to speaking and singing in front of people was especially strong for sixth-grade boys, where a very high chi-square value of 105.4 was obtained.

Definite preferences and disinclinations are also indicated among the self description choices of Pentad 12, although the chi-square values for the equal likelihood hypotheses are not nearly so high as in the Pentad 11 choices. The descriptive data and statistics for this set are provided in Table 30. In this set fourth-grade boys differed significantly from

Table 29

Frequency Distributions by Sex and by Grade of First and Last Choice on Pentad Eleven of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 11: Which one of these things tells most what you are like? Which one is least like you?

51. I usually pick out my own clothes.
52. I read a lot for fun.
53. I like to run and play hard.
54. I like to sing or speak in front of people.
55. I like to be the leader of games.

Group			First Choice (Most Like)				
	51	52	53	54	55	Omit	Total
Fourth Boys	9	12	27	5	9	1	63
Fourth Girls	21	10	14	6	7	1	59
Sixth Boys	27	26	63	5	16	15	152
Sixth Girls	65	46	17	13	10	7	158

Group			Last Choice (Least Like)				
	51	52	53	54	55	Omit	Total
Fourth Boys	16	8	4	20	14	1	63
Fourth Girls	16	7	10	17	8	1	59
Sixth Boys	23	18	5	74	17	15	152
Sixth Girls	24	15	17	72	23	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	27.8**	27.8**
Fourth Girls	34.6**	14.8**
Sixth Boys	69.4**	105.4**
Sixth Girls	77.4**	74.3**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	9.32	4.39
Sixth Grade	27.76**	13.28**

Grade Hypothesis	Most Like	Least Like
Boys	5.56	14.90**
Girls	10.99*	10.27*

* Significant at .05 level
** Significant at .01 level

Table 30

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Twelve of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 12: Which of these things tells most what you are like? Which one is least like you?

56. I think about a lot of dangerous things.
57. I have to be very careful of my health.
58. I'm not doing as well as I should in school work.
59. I don't like my first name.
60. It bothers me a lot to lose at games.

Group	First Choice (Most Like)						
	56	57	58	59	60	Omit	Total
Fourth Boys	24	8	19	3	8	1	63
Fourth Girls	14	11	14	16	2	2	59
Sixth Boys	41	19	59	10	10	13	152
Sixth Girls	31	17	61	33	5	11	158

Group	Last Choice (Least Like)						
	56	57	58	59	60	Omit	Total
Fourth Boys	12	5	11	18	16	1	63
Fourth Girls	14	11	6	10	16	2	59
Sixth Boys	30	23	17	28	41	13	152
Sixth Girls	36	29	12	32	38	11	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	64.1**	10.8*
Fourth Girls	20.1**	16.0**
Sixth Boys	66.9**	11.5*
Sixth Girls	60.0**	14.5**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	16.18**	5.96
Sixth Grade	6.81	4.80

Grade Hypothesis	Most Like	Least Like
Boys	9.34	5.42
Girls	12.11*	1.99

* Significant at .05 level
** Significant at .01 level

fourth-grade girls in their descriptions of what was most characteristic of them, while sixth-grade boys and girls gave approximately the same pattern of choices. Thus, fourth-grade boys chose "I think about a lot of dangerous things" as most characteristic in greatest frequency, while the girls at this grade level chose "I don't like my first name." At the sixth-grade level, both boys and girls chose "I'm not doing as well as I should in school work" as most characteristic of them, with the boys selecting "thinking about dangerous things" as second choice and the girls "not liking their first name" as second choice. The differences in the patterns of choices of the girls at the two grade levels was significant from chance expectancy; that of boys approached the value (9.49) required for significance at the .05 level. The apparent greater concern for school work at the sixth-grade level most likely accounted for these values. Among last choices mentioned most frequently as being not very characteristic of them, both girl groups and sixth-grade boys chose "It bothers me a lot to lose at games" as being least characteristic, with fourth-grade boys mentioning "I don't like my first name" slightly more frequently than "bothered at losing games." Other popular choices of "least like" behavior patterns of girls were "thinking a lot about dangerous things" and "having to be careful of my health." None of the sex or grade hypotheses for the "least like" choices in this set were rejected.

Definite preferences in self-description was indicated for all groups in the five-option set presented in Pentad 13. Only the fourth-grade boys seemed to have definite choices for least characteristic behavior patterns. The data and statistics for this pentad are given in Table 31. First choice for both boy groups was "I spend a lot of time on my hobbies," with fourth-grade girls indicating the same number of

Table 31

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Thirteen of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 13: Which of these things tells most what you are like? Which one is least like you?

61. I spend a lot of time keeping neat and attractive.
62. I've helped to plan a lot of parties.
63. I save most of my spending money.
64. I've had better luck than most people I know.
65. I spend a lot of my time on my hobbies.

Group	First Choice (Most Like)						
	61	62	63	64	65	Omit	Total
Fourth Boys	9	6	18	3	26	1	63
Fourth Girls	12	6	19	2	19	1	59
Sixth Boys	20	11	41	21	46	13	152
Sixth Girls	41	17	39	25	29	7	158

Group	Last Choice (Least Like)						
	61	62	63	64	65	Omit	Total
Fourth Boys	20	10	8	12	12	1	63
Fourth Girls	10	10	16	10	12	1	59
Sixth Boys	28	38	20	30	23	13	152
Sixth Girls	30	25	36	24	36	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	71.3**	9.7*
Fourth Girls	43.8**	2.9
Sixth Boys	32.2**	6.9
Sixth Girls	13.1*	4.4

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	1.61	6.06
Sixth Grade	1.94	5.28

Grade Hypothesis	Most Like	Least Like
Boys	5.99	8.57
Girls	11.54*	1.03

* Significant at .05 level
** Significant at .01 level

responses for "spending time on hobbies" and "saving most of my spending money." Sixth-grade girls indicated "I spend a lot of time keeping neat and attractive" as their first choice; however, "saving spending money" and "hobbies" were also chosen frequently. Of the two hypotheses of sex differences and two grade differences in first choices in this pentad, only the hypothesis of differences between the girls at the two grade levels was rejected. The far greater preference for spending time to keep neat and attractive on the part of the sixth-grade girls apparently accounted for the rejection of this hypothesis of no differences between the girls at the fourth- and sixth-grade levels. With respect to the choices of least characteristic patterns, the distributions are fairly equally scattered, since only one of the four groups had choices significant from chance (and that barely significant at 9.7) in the case of equal likelihood hypotheses, and none of the sex-by-grade or the grade-by-sex hypotheses was rejected. Fourth-grade boys (not surprisingly) picked "spending a lot of time keeping neat and attractive" as least characteristic of them. If observation can serve as a validating criterion, the investigators would venture the suggestion that this choice is well-substantiated in their personal experience!

Table 32 presents the data and statistics for testing hypotheses related to the first and last choices of Pentad 14. Very strong preferences were indicated in this set, since the chi-square values for "most like" choices for the equal-likelihood hypotheses are very high in every instance, especially at the sixth-grade level. All groups chose to a marked degree (over half as compared with an expectancy of one-fifth in every instance except fourth-grade girls) the option "I think a lot about mistakes I've made" as being characteristic of them. Of the sex-by-grade differences and the grade-by-sex differences, only the

3

Table 32

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Fourteen of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 14: Which of these things tells most what you are like? Which one is least like you?

66. I think a lot about mistakes I've made.
67. Some kids think I'm too bossy.
68. I have a lot of bad dreams.
69. People treat me like a baby too much of the time.
70. People hurt my feelings a lot.

Group	First Choice (Most Like)						
	66	67	68	69	70	Omit	Total
Fourth Boys	32	4	13	8	5	1	63
Fourth Girls	26	3	16	1	12	1	59
Sixth Boys	86	17	10	15	10	14	152
Sixth Girls	79	11	12	18	29	9	158

Group	Last Choice (Least Like)						
	66	67	68	69	70	Omit	Total
Fourth Boys	7	22	12	6	15	1	63
Fourth Girls	11	18	10	11	8	1	59
Sixth Boys	16	33	45	22	22	14	152
Sixth Girls	17	39	40	33	20	9	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	95.9**	8.9
Fourth Girls	80.7**	5.8
Sixth Boys	155.8**	19.2**
Sixth Girls	108.4**	15.4**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	9.28	4.94
Sixth Grade	7.97	5.53

Grade Hypothesis	Most Like	Least Like
Boys	7.38	8.69
Girls	11.88*	5.69

* Significant at .05 level
** Significant at .01 level

differences in distribution of the first choices of the two girl groups could be said to diverge from expectancy to a non-chance degree. Apparently the second choice for sixth-grade girls of "People hurt my feelings a lot" as compared with "I have a lot of bad dreasm" for fourth-grade girls accounted for much of this difference. With respect to the distribution of "least like" choices, the only hypotheses rejected were the hypotheses of equal choices for sixth-grade boys and sixth-grade girls. In both instances, "I have a lot of bad dreams" was mentioned much more frequently than would be expected by chance with "Some kids think I'm too bossy" a strong runner-up in choice in both instances.

Pentad 15 offered choices in self-description relating to playing in team games, arbitrating between children's arguments, figuring things out without asking for help, never being sick, and having friends in one's house a lot. The data and statistics for this five-option set are given in Table 33. Strong preferences were indicated for the fourth- and sixth-grade boys, with definitely non-chance preferences for fourth-grade girls, but the equal-likelihood hypotheses was accepted for sixth-grade girls. A very definite preference for "liking to play in team games against other schools" was recorded for both boy groups, which did not differ significantly from each other. First choice for fourth-grade girls was "my friends spend a lot of time at my house," with "I'd rather figure things out for myself before asking for help" being first mentioned by sixth-grade girls (non-chance preference). The distributions for the girl groups were not significantly different. At both grade levels, however, boys gave significantly different patterns than girls. With respect to least choices or disinclinations, the equal likelihood hypotheses were rejected in the case of the two boy groups and the sixth-grade girls. Most frequently mentioned as least choice for both groups of

Table 33

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Fifteen of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 15: Which one of these things tells most what you are like? Which one is least like you?

71. I like to play in team games against other schools.
72. I can usually get kids to stop arguing and make up.
73. I'd rather figure things out for myself before asking for help.
74. I'm practically never sick.
75. My friends spend a lot of time at my house.

Group	First Choice (Most Like)						
	71	72	73	74	75	Omit	Total
Fourth Boys	30	6	11	13	2	1	63
Fourth Girls	7	13	11	11	16	1	59
Sixth Boys	55	10	21	30	20	16	152
Sixth Girls	29	27	42	33	20	7	158
Group	**Last Choice (Least Like)**						
	71	72	73	74	75	Omit	Total
Fourth Boys	10	24	3	17	8	1	63
Fourth Girls	11	9	10	15	13	1	59
Sixth Boys	17	46	19	23	31	16	152
Sixth Girls	39	33	15	33	31	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	87.2**	29.7**
Fourth Girls	14.9**	5.9
Sixth Boys	42.9**	20.5**
Sixth Girls	8.7	10.8*
Boy-Girl Hypothesis	**Most Like**	**Least Like**
Fourth Grade	27.83**	11.83*
Sixth Grade	11.12*	7.04
Grade Hypothesis	**Most Like**	**Least Like**
Boys	8.94	11.18*
Girls	8.56	2.24

* Significant at .05 level
** Significant at .01 level

boys was "I can usually get kids to stop arguing and make up" but other choices varied to such an extent that the hypothesis that boys at the two grade levels made similar responses was rejected. (Second choice for fourth-grade boys as least characteristic was "I'm practically never sick" as compared with "My friends spend a lot of time at my house" for sixth-grade boys.) No clear cut pattern was discerned for fourth-grade girls, while sixth-grade girls said "I like to play in team games against other schools" was least characteristic of them. Fourth-grade boys differed significantly in "least like" choices from both fourth-grade girls and from sixth-grade boys.

Pentad 16 offered choices as most and least like the following behavior patterns: ideas not turning out well, wishing for better looking clothes, not being able to make oneself do things one likes, making friends with people one likes best, and thinking most grown-ups are too strict. Table 34 provides data and statistics for testing hypotheses concerning this set of choices. Definite preferences were indicated for the fourth-grade boys and girls, and the sixth-grade boys. Although the sixth-grade girls chose as first choice the same option as the other three groups - "My ideas don't turn out very well" there was sufficient choice among the other four options to cause the null hypothesis of equal probability of choice to be accepted. None of the grade-by-sex or sex-by-grade hypotheses were rejected. Stated differently, the pattern of choices among the four groups was essentially similar. The patterns of least choices showed a definite indication of aversions or disinclinations since the equal probability hypotheses were rejected in every instance. Leading as first choice in every group as being least characteristic was "I think grown-ups are too strict." In second place for all groups except sixth-grade boys was "I wish I had better looking

Table 34

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Sixteen of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 16: Which of these things tells most what you are like? Which one is least like you?

76. My ideas don't turn out very well.
77. I wish I had better looking clothes.
78. Sometimes I can't make myself do things I like, even when I'm invited to do them.
79. It's hard to make friends with the people I like best.
80. I think most grown-ups are too strict.

Group	First Choice (Most Like)						
	76	77	78	79	80	Omit	Total
Fourth Boys	23	1	13	13	6	7	63
Fourth Girls	23	5	13	14	2	2	59
Sixth Boys	43	6	29	25	29	20	152
Sixth Girls	41	25	31	24	26	11	158

Group	Last Choice (Least Like)						
	76	77	78	79	80	Omit	Total
Fourth Boys	9	11	8	9	19	7	63
Fourth Girls	9	11	10	4	23	2	59
Sixth Boys	33	23	21	13	42	20	152
Sixth Girls	33	36	20	17	41	11	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	39.0**	14.7**
Fourth Girls	26.2**	41.2**
Sixth Boys	26.8**	19.2**
Sixth Girls	6.7	14.7**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	4.70	2.52
Sixth Grade	5.22	6.37

Grade Hypothesis	Most Like	Least Like
Boys	4.10	1.44
Girls	7.38	6.69

* Significant at .05 level

** Significant at .01 level

clothes;" sixth-grade boys chose "My ideas don't turn out very well" second most frequently as being least characteristic. The hypotheses of no sex and grade differences in patterns of least-liked choices were accepted.

Definite preferences and aversions for all four groups of children are indicated by the data and statistics reported in Table 35 pertaining to Pentad 17. Both fourth-grade groups indicated that "My folks are interested in helping me with my school work" as being most characteristic of them, while sixth-grade boys chose "My parents usually try to give me the things I want" most frequently, and sixth-grade girls chose "My parents usually try to give me the things I want" and "My parents are interested in helping me with my school work" in equal frequency. There were no significant grade and sex differences. The patterns of avoidance, aversions, or "least like" choices also were non-significant from chance expectance. Fourth-grade boys and both sixth-grade girls and boys chose "I generally do my work around the house without being told what to do" most frequently as being least characteristic of them, while fourth-grade girls chose "At home I usually help decide what the family is going to do" in greatest frequency as least like them. The two sex-differences hypotheses were confirmed; in fact, the similarity of boys and girls at the sixth-grade level was striking with a very low chi-square value obtained. Girls at the two grade levels varied significantly with sixth-grade girls indicating that their parents try to give them what they want in much greater frequency as not characteristic than did the fourth-grade girls.

Table 36 presents the data and statistics related to Pentad 18. Definite preferences and aversions are indicated since all 8 equal-likelihood hypotheses were rejected. In the case of the sex differences and

Table 35

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Seventeen of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 17: Which one of these things tells most what you are like? Which one is least like you?

81. I generally do my work around the house without being told what to do.
82. My parents usually try to give me the things I want.
83. I usually try to get my folks' advice before I make up my mind about things.
84. My folks are interested in helping me with my school work.
85. At home I usually help decide what the family is going to do.

Group			First Choice (Most Like)				
	81	82	83	84	85	Omit	Total
Fourth Boys	14	9	7	26	6	1	63
Fourth Girls	12	14	4	24	4	1	59
Sixth Boys	19	50	22	36	8	17	152
Sixth Girls	23	47	18	47	16	7	158

Group			Last Choice (Least Like)				
	81	82	83	84	85	Omit	Total
Fourth Boys	21	12	6	4	19	1	63
Fourth Girls	17	3	7	5	26	1	59
Sixth Boys	61	13	13	7	41	17	152
Sixth Girls	68	17	14	10	42	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	19.4**	47.0**
Fourth Girls	35.4**	71.0**
Sixth Boys	39.3**	79.4**
Sixth Girls	32.0**	79.9**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	2.41	6.97
Sixth Grade	3.24	.73

Grade Hypothesis	Most Like	Least Like
Boys	7.17	3.33
Girls	5.85	15.67**

* Significant at .05 level
** Significant at .01 level

Table 36

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Eighteen of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences, and Grade Differences

Pentad 18: Which of these things tells most what you are like? Which one is least like you?

86. I don't like to borrow or lend things.
87. When I read a very sad story, I can't help crying a little.
88. I don't care much about dogs or other pets.
89. I have my best times with boys and girls who are younger.
90. I'd rather do things with grown-ups - it's boring to play with kids all the time.

Group	First Choice (Most Like)						
	86	87	88	89	90	Omit	Total
Fourth Boys	15	14	8	16	9	1	63
Fourth Girls	6	25	11	12	4	1	59
Sixth Boys	39	23	16	28	29	17	152
Sixth Girls	21	76	13	28	13	7	158

Group	Last Choice (Least Like)						
	86	87	88	89	90	Omit	Total
Fourth Boys	11	15	21	6	9	1	63
Fourth Girls	17	9	16	6	10	1	59
Sixth Boys	31	16	63	8	17	17	152
Sixth Girls	32	18	56	9	36	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	10.2*	16.1**
Fourth Girls	63.0**	20.0**
Sixth Boys	10.6*	70.1**
Sixth Girls	92.0**	43.1**

Boy-Girl Hypothesis	Most Like	Least Like
Fourth Grade	9.81	3.38
Sixth Grade	19.74**	4.91

Grade Hypothesis	Most Like	Least Like
Boys	5.34	9.33
Girls	.86	5.70

* Significant at .05 level
** Significant at .01 level

grade differences hypotheses, only the sex differences at the sixth-grade level were sufficiently great to reject the null hypotheses. In examining the distribution, the most frequently mentioned first choice for both girl groups (to a marked extent) was Option 87 "When I read a very sad story, I can't help crying a little." First choice for fourth-grade boys was "I have my best times with boys and girls who are younger" chosen by 16, while "I don't like to borrow or lend things," chosen by 15, and "When I read a very sad story, I can't help crying a little" chosen by 14 were close contenders. Sixth-grade boys chose "I don't like to borrow or lend things" as being most characteristic in the greatest frequency. All groups except fourth-grade girls chose "I don't care much about dogs or other pets" as being least characteristic of them to the greatest extent, and the fourth-grade girls chose "I don't like to borrow or lend things" only one more time (17 as compared with 16) over the "not caring for pets" as least characteristic of them. The hypotheses of no differences in the distribution of least-like characteristics for grades and sexes were all accepted. Stated differently, the groups all perceived themselves essentially the same; the differences were not sufficient to indicate different perceptions.

Five additional behavior patterns were presented in Pentad 19. Table 37 provides data and statistics for determining whether definite preferences and aversions in self-description were perceived by the groups in this study. Again, the hypotheses of equal likelihood of choices for both most like and least like were rejected in every case, indicating definite preferences and aversions. The two fourth-grade groups chose "I take time to be sure I know the answer before I say things in class" most frequently as most like them, with sixth-grade boys selecting

Table 37

Frequency Distributions by Sex and by Grade of First and Last Choices on Pentad Nineteen of Children's Self-Description Scale with Chi Square Values for Tests of Equal Likelihood, Sex Differences and Grade Differences

Pentad 19: Which one of these things tells most what you are like? Which one is least like you?

91. I take time to be sure I know the answer before I say things in class.
92. I can usually take a joke on myself without feeling bad.
93. I've worked on projects to raise money for school or community drives.
94. I usually tell people when they have done something well.
95. People seem to think I'm rather nice looking.

Group	91	92	93	94	95	Omit	Total
			First Choice (Most Like)				
Fourth Boys	21	13	7	17	4	1	63
Fourth Girls	30	7	4	11	6	1	59
Sixth Boys	40	42	7	28	19	16	152
Sixth Girls	41	39	7	47	17	7	158
Group			Last Choice (Least Like)				
	91	92	93	94	95	Omit	Total
Fourth Boys	8	9	11	11	23	1	63
Fourth Girls	6	12	14	4	22	1	59
Sixth Boys	29	17	45	10	35	16	152
Sixth Girls	36	23	51	8	33	7	158

Equal Likelihood Hypothesis	Most Like	Least Like
Fourth Boys	42.2**	18.6**
Fourth Girls	45.6**	23.1**
Sixth Boys	31.6**	28.7**
Sixth Girls	39.3**	33.7**
Boy-Girl Hypothesis	**Most Like**	**Least Like**
Fourth Grade	5.77	4.23
Sixth Grade	2.77	1.83
Grade Hypothesis	**Most Like**	**Least Like**
Boys	3.65	13.53**
Girls	5.33	16.76**

*** Significant at .05 level**
**** Significant at .01 level**

"I can usually take a joke on myself without feeling bad" slightly more frequently than the first choice of the fourth-grade groups. Sixth-grade girls indicated "I usually tell people when they have done something well" as their most frequently selected most like choice. All four distributions of first choices were sufficiently similar to accept the null hypotheses of sex and grade differences in first choices. The fourth-grade groups selected "People seem to think I'm rather nice looking" as being least characteristic of them in the greatest frequency. Both sixth-grade groups chose as least characteristic in the greatest numbers the option "I've worked on projects to raise money for school and community drives." Differences between distributions of the two groups of boys and the two groups of girls were significantly different from chance. The boys did not differ from the girls at the two grade levels.

In summarizing the wealth of data pertaining to the children's self descriptions as indicated in this Child Self Description Scale, the following points emerged. Of 76 equal-likelihood hypotheses concerning characteristics most like themselves, children indicated definite preferences, that is the choices did not fall within the expected pattern of twenty per cent or one-fifth for each option, since 73 of the 76 hypotheses were rejected. Some of the more obvious self-descriptions preferred are summarized in the following paragraph. Of 76 hypotheses of equal likelihood of what is least preferred, 64 were rejected. Of the 19 hypotheses related to differences between distribution of first choices among boys and girls at the fourth-grade level, five were rejected and 14 were accepted. For the sixth-grade level, the results of the hypotheses of sex differences in first choices were nine rejected, ten accepted. Of the 19 hypotheses of sex differences at the fourth-grade level in last choices, five were rejected and 14 were accepted. Of the 19 corresponding hypotheses concerning last choices among boys and girls at the sixth-grade level, four were rejected and 15 accepted. Differences in distribution of the first choices between the boys at the fourth- and sixth-grade levels indicated that all 19 null hypotheses were accepted. Apparently boys at the two grade levels perceive themselves in quite similar fashions. Girls varied somewhat however in their distribution of choices, with seven of the 19 hypotheses of first choices being rejected.

The count of rejection or acceptance of hypotheses of no differences between boys and girls at the two grade levles in the distribution of last choices was as follows: boys - five rejected, 14 accepted; girls - seven rejected, 12 accepted.

Boys and girls at both fourth-and sixth-grade levels described themselves as quick and active, good at sports, lively and full of fun, pretty sure of what they wanted to do when they were older (which was, "likely to go to college.") They thought a lot about mistakes they had made, and felt that their ideas didn't always turn out well. The boys at both grade levels liked arithmetic, would like to become scientists or engineers, said they were willing to take chances, stick to a job until it is finished, and liked to run and play hard. The boys also said it was hard for them to be nice to people they didn't like, that they spent a lot of time on their hobbies, and that they liked to play in team games against other schools. Although the distribution of first choices of the boys at the two grade levels did not vary from the hypothesis of equal choices, the most frequently mentioned choices in four of the 19 sets varied with fourth-grade boys mentioning most often that they thought about dangerous things, their parents were interested in helping them with their school work, they had their best times with younger boys and girls, and that they took time to know the answer before they said things in class. Sixth-grade boys reflect a greater concern about school work in stating as most characteristic of themselves that they were not doing as well as they should in school work, that parents usually tried to give them the things they want, that they didn't like to borrow or lend things, and that they could take a joke on themselves without feeling bad.

Both groups of girls chose art as their favorite subject in school with arithmetic second best liked by fourth-grade girls and reading second in preference for sixth-grade girls. Girls of both grades gave actress as their preferred vocation, stated that they usually picked out their own clothes, and admitted that when they read a sad story, they usually cried. Like fourth-grade boys, the fourth-grade girls stated that they stuck to a job until it was finished, spent a lot of time on hobbies, said their parents were interested in helping them in school work, and that they took time to know the answer before they said things in class. Unique as self-descriptions characteristic of this group were that they knew many people, didn't like their first names, got nervous when they talked to teachers, and that their friends spent a lot of time at their house. Sixth-grade girls gave several unique responses (that is different from the other groups). They stated that they got very excited about things, that they spent a lot of time keeping neat and attractive, that they would rather figure things out for themselves, and they usually told people when they (the people) had done something well.

In their self-descriptions of what they consider as least characteristic or least important to them, the four groups of pupils showed considerable agreement. All four groups, both boys and girls at fourth- and sixth-grade levels agreed that getting a job right after high school, looking older than their ages, making up their minds quickly, a dislike for trying new games at parties, liking to sing or speak in front of people, and thinking that grown-ups are too strict was LEAST characteristic of them. All the groups _except_ the fourth-grade boys stated that being bothered a lot to lose at games was least like them; stated positively, these boys and girls did not seem to take winning games as extremely important. All the groups _except_ the fourth-grade girls say that being the one who usually thinks up new things to do, generally doing their work around the house without being told what to do, and not caring much about dogs or other pets was LEAST like them. All groups _except_ sixth-grade boys stated that not being able to be fooled easily was least like them; stated differently, they apparently admitted to being fooled fairly easily. Both groups of boys liked the vocation of engineer best, and also said that usually being able to get kids to stop arguing and make up was least like them. Girls at both grade levels agreed that science was their least-liked subject in school, and that willingness to take chances was least like them. Fourth-grade boys and fourth-grade girls gave similar responses in stating that "some kids think I'm too bossy" and "people seem to think I'm rather nice looking" are LEAST like them. Sixth-grade boys and girls agree in that having a lot of bad dreams and working on projects to raise money for school and community drives is LEAST characteristic of them. Among responses unique to a particular group were the responses of the fourth-grade boys in selecting reading as least-liked subject, not liking their first name, and spending a lot of time keeping neat and attractive as not very characteristic of them. Fourth-grade girls stated that usually being chosen to be in plays and programs, helping at home to decide what the family was going to do, and not liking to borrow or lend things were among characteristics they are least likely to possess. Sixth-grade boys mentioned history as their least-liked subject most frequently and usually being a leader in groups, and getting very excited about things as items not characteristic of them. Sixth-grade girls chose as traits or characteristics which they deem to be least like them the following items: being good in school work, and liking to play in team games against other schools.

CHAPTER V

CASE STUDIES OF SELECTED "UNUSUAL" PUPILS

The major emphasis of the present study on the child's self concept as it relates to other important variables has been on the group or statistical characteristics which may provide reliable generalizations. The findings related to this emphasis have been reported in Chapter IV. An important related study by Eubank (75) focussed attention on those pupils whose self concepts varied substantially in either a positive or negative direction from the concepts of the pupils as perceived by their teachers.

From the data as originally collected, the pupils with the highest self concept scores (more than 85 for the fourth-grade pupils and more than 78 for the sixth-grade pupils) and the lowest scores (less than 66) were selected for further study. The pupils with either high or low self concept scores who were regarded by their teachers as having a similar pattern of behavior were eliminated. Stated differently, those pupils whose teachers generally agreed with their self-perceptions were not studied in detail. Remaining for more intensive study were pupils who scored themselves relatively high or low in self concept, yet were seen by their teachers in a contrasting way, that is high self concept - low teacher concept and low self - high teacher concept. The distribution of such pupils for the high and low self concept scores for the fourth and sixth grades were:

	Fourth Grade	Sixth Grade
High Self - Low Teacher	19	11
Low Self - High Teacher	14	14

Ten children were chosen from each group, making a total of forty children to be studied in greater detail by means of interviews and questionnaires for both children and parents. The ten children in each group were selected according to: (1) accessibility, because some of the children had moved out of the county; (2) completeness of information in the cumulative folders; and (3) availability of the teacher's score on the *Self Concept Scale*. (Two teachers had refused to score the children on this scale.)

The distribution of the forty children studied in detail by Eubank according to grade and sex was:

	Fourth Grade		Sixth Grade	
	Boys	Girls	Boys	Girls
High Self -- Low Teacher	5	5	6	4
Low Self -- High Teacher	8	2	4	6

In this chapter eight brief case studies of these 40 pupils are presented: a boy and a girl with a high self concept and a boy and a girl with a low self concept from each of the fourth and the sixth grades. These facts are presented in this manner to suggest how the self concept may fit into the array of available data related to the individual child. Rather than concentrating on the *trait* abstracted from groups of individuals, the focal point of attention is on the interrelated dynamics of the *child* himself.

In addition to the *Child Self Description Scale*, the *Self Concept Scale*, the *Children's Manifest Anxiety Scale*, information sheets, and the *Michigan Picture Test* (each described in Chapter III), the substudy included the *U. S. C. Parent Attitude Inventory*, *Eubank Questionnaires*, and interviews.

In order to structure the interviews with both parents and children, the investigator compiled two questionnaires, one for parents and one for children (see Appendix). These interviews took place in the homes of the children. At least two interviews were necessary for each child. From the information in the pupil's school cumulative folder, the names of the parents were obtained. If the name was listed in the telephone directory, the mother was called, informed briefly about the purpose of the study, and an appointment was made for an interview. Six of the forty children had no telephone in the home; two others had telephones but the names were not listed in the directory. Thus, thirty-two of the appointments were anticipated. The responses of the parents to the study were unanimously cordial.

The U. S. C. Parent Attitude Inventory (see Appendix) was developed by Edward J. Shoben, Jr. Dr. Shoben hypothesized that a given parent behaves toward a given child with sufficient consistency from situation to situation to differentiate himself measurably from other parents, and that the type of characteristic parental behavior displayed is significantly related to the adjustment of the child. The U. S. C. Parent Attitude Inventory appears to have construct validity in differentiating the parents of maladjusted children from the parents of adjusted children.

Shoben (81) attempted to prove that childhood personality and behavior problems are related to parental policies and their manner of execution and that over-protection, rejection, repressiveness, severity, domination, and undue submissiveness are the parental traits which are associated with children's difficulties.

There were 148 items in the original inventory. The final questionnaire consisted of eighty-five statements, such as, "The children who make the best adults are those who obey all the time." The parent was instructed to rate each statement one, two, three, or four according to (1) strongly agree, (2) mildly agree, (3) mildly disagree, and (4) strongly disagree.

The items were classified into three categories:

1. Dominant: reflecting a tendency on the part of the parent to put the child in a subordinate role, to take him into account quite fully but always as one who should conform completely to parental wishes under penalty of severe punishment.
2. Possessive: refers to excessive coddling of the child, emphasizing unduly the affectional bonds between parent and child, valuing highly the child's dependence on the parent, and restricting the child's activities to those which can be carried on in his own family group.
3. Ignoring: regards the "good" child as the one who demands the least parental time, and to disclaim responsibility for the child's behavior.

The reliability of the U. S. C. Parent Attitude Inventory was determined by the split-half method, corrected by the Spearman-Brown formula. Reliability values were: total scale .95, dominant .91, possessive .90, and ignoring .84. Validity on the group was: total scale .769, dominant .623, possessive .721, and ignoring .624. Roughly half the variance in the criterion of child adjustment may be predicted from the attitude scores.

In the first interview in the home some time was first spent in establishing rapport. The investigator attempted to explore the situation and explain the study under investigation. After the questionnaire had been administered, the parent was asked to check the Self

Concept Scale as he or she saw his child. Then the Parent Attitude Inventory was introduced.

In the second interview in the home the investigator sought to gain the confidence of the child, and administered any tests the child might have missed in the school. The interviewer administered the Michigan Picture Test by tape recorder if the child had not been one of the random samples tested in the school. The questionnaire was given orally.

CASE STUDIES

Case Study 1: Bruce, Grade Four, Boy, High Self Concept

Bruce was a goodlooking boy, large for his age, and apparently very healthy.

There was no telephone in the home; therefore, the interviewer had to go unannounced and explain the reason for the interview. The parents did not seem to comprehend the nature of the study, but out of confidence from previous acquaintance with the interviewer, they cooperated fully, and appeared to enjoy the entire process of investigation.

Both parents were at home for the first interview. The mother worked at a mill, but the interviewer chose a time for the visit when the mother would be at home. The father was at home recuperating from a lengthy stay in the hospital.

Neither parent could read well enough to answer the questions on the Self Concept Scale or the U. S. C. Parent Attitude Inventory. The father's education was fifth grade, the mother's was third grade. The interviewer read the questions to the parents. She also had to supervise the marking of each question to be assured the answer the parent intended was marked in the proper place. The parents repeatedly tried to get the interviewer to answer the questions for them. The interviewer repeatedly reassured them that there was no right or wrong answer, that their opinions were desired.

The parents appeared to love the child very much and seemed to have a rather pleasant attitude toward the child and the world in general in spite of severe financial difficulties.

The home was bleak and drab from the outside. It was close to the road, and had no sign of grass or shrubbery about it. It was an unpainted, wood frame house with a porch across the front. It was rented. The interior, however, was clean and neatly (but cheaply) furnished. Rugs and curtains added somewhat to the cheerfulness of the atmosphere. There was a television set, which was out of order. There were no books, magazines, or newspapers to be seen.

Bruce was a fourth-grade boy, age twelve. He was large for his age, appeared quite healthy, and would have been handsome except for the fact that one eye was defective. One eye was decidedly out of focus. His I. Q., as measured by the California Mental Maturity Test, was 83.

Bruce had been chosen for case study because he had rated himself 90, the highest possible score, on the Self Concept Scale, while his teacher had rated him only 39. The mother rated him 82 and the father 83. These ratings indicated that the child's high self concept was not unlike the parents' perception of him. Visiting in the home reinforced this impression.

During the administration of the questionnaire to the parents, the mother stated that they never had to punish the child, that he never did anything bad. She said, also, that she was not satisfied with his grades, but she had to accept them because he could not do any better. Both parents scored above the scale for "Ideal Scores" on the Parent Attitude Inventory on every subscale. (It will be recalled that the "Ideal Score" was low.)

Bruce belonged to no clubs and rarely attended Sunday School or church. He was the youngest child in a family of five children. All the other children were over twenty-one, and all were married and away from home except a feeble-minded brother who lived in the home with Bruce and the parents.

Bruce's three wishes were: (1) to have a new house, (2) a new car, and (3) a go-cart. He would take his "Mummy and Daddy" with him on a desert island because they could cook for him. Both of these statements suggested an immaturity in the child which was reemphasized throughout the interviews and the Michigan Picture Test.

Bruce said all four members of the family slept in one room: the older brother with the father and Bruce with the mother.

On the Child's Self Description Scale, he somewhat unrealistically indicated a desire to go to college. He also said he saved most of his spending money, but he had no spending money as far as the parents knew.

The Children's Manifest Anxiety Scale indicated he was anxious about a number of things: he gets nervous; he thinks his heart beats fast sometimes; he sometimes feels like shouting; others can do things easier than he; he feels that others do not like the way he does things; he has trouble making up his mind; he worries about what could happen to his parents; etc.

Getting Bruce to respond to the Michigan Picture Test took great effort. He failed to respond to some stimulus pictures.

Here is the story he told when given the blank card:

> "Boy riding bicycles ran into tree. (Long pause) He ran into a tree and fell off. (Long pause) He had to go to a doctor. (Long pause) And he got well, come back home."

The major impression the interviewer received from the interview in the home was: the child was treated like a baby and he responded accordingly. The mother talked "baby talk" to Bruce each time she addressed him, and frequently would ask if he were too hot or too cold, or hungry, etc. After observing her attitude toward him, it came as no surprise when the child said he slept with his mother. The father also gave the child undue attention. Even the older brother seemed to adore the boy, although the brothers obviously came into dispute over various things.

Case Study 2: Kathy, Grade Four, Girl
High Self Concept

Kathy was a shy little girl, rather pretty, with deep blue eyes and dark hair. She was polite and courteous, and cooperated well in all aspects of the interview.

The father and mother were both present for the interview. They were a young couple and Kathy was their only child. The father was pleasant and cheerful. It was he who took the lead in answering the questions. The mother was polite and courteous, but quiet.

The home was located in a mill section. It was neat and clean, but unusually small; there was a tiny kitchen; adjoining it was a small eating and sitting area, hardly large enough for the table and four chairs. Off this room was one bedroom and a bath. In the bedroom was one double bed. Kathy reported, during the interview with her, that she slept with her Daddy until twelve midnight when he went to work, then she slept with her mother until morning. There was a television set, but no books or magazines were in evidence. It seemed incongruous with the smallness of the house, but there was a new model car in the yard, and an outboard motor boat behind the house.

Although the mother had finished the tenth grade in school and the father the sixth grade, they insisted that the U. S. C. Parent Attitude Inventory be read to them. As each question was read, they marked their papers separately and quietly. The only questions asked were by the mother and each question was concerning some statement dealing with sex. For example, she asked that statement number 47 be reread, "Children who indulge in sex play become adult criminals." When statement number 53 was read, she asked the definition of the word "masturbates." Statement number 83 read "Sex is one of the greatest problems to contend with in children." Kathy's mother strongly agreed. She also strongly agreed that children who indulge in sex play become adult criminals. With the statement, "The shy child is the worse off than the one who masturbates," Kathy's mother strongly disagreed.

Although the mother reported that her predominant method of punishment for Kathy was to nag or scold, when given the statement, "No one should expect a child to respect parents who nag and scold," the mother strongly agreed. On all subscales both parents' scores were much greater than the "Ideal" scores.

On the Self Concept Scale Kathy's score was 85. Her ideal self concept was 88. By the adjective "mean" she had erased that she would like to be mean about half the time ahd had marked very black and hard that she would like to be mean nearly always. She had checked on the self concept side that she thought of herself as mean just now and then. Neither parent nor the teacher checked that they saw Kathy as a mean child. The teacher's comments in the child's cumulative folder had been, "Kathy enjoys school. She is very sweet and anxious to please."

Kathy had scored herself 85 on the Self Concept Scale; her father scored her 77; the teacher scored her 75; and the mother gave the child the lowest score of all: 73.

Kathy's score on the Children's Manifest Anxiety Scale was 16. This was not as high as the average for the entire groups tested. She checked "Yes" to the statements: other children are happier than I am; I get nervous when things do not go the right way for me; I feel alone even when there are people around me; I feel that others do not like the way I do things; I am secretly afraid of a lot of things; I feel I have to be best in everything; often I feel sick in my stomach; I get headaches; I often worry about what could happen to my parents, and several others.

On the Child Self Description Scale, Kathy said being good in school work was unlike her, yet her grades had been consistently of the highest quality through the four years in school. She said she had good ideas, but was not dependable or serious. She said she could be fooled easily.

Kathy was a Girl Scout and went to Sunday School sometimes. On her three wishes, Kathy wished first to be back in Mrs. D.'s room at school because all her friends were there; second, she wished to have everything she wanted; and third, she wished to be a famous person. The first wish was classified as normal for a fourth-grade child; the other two were judged as being immature.

She said she always went to her Daddy when she had a problem or needed help because he did not yell at her, and he understood. If she had to live on a desert island, she would take her parents with her because she loved them more than anyone else in the world. When asked whom she had rather be like, she said like her own self.

Kathy's Michigan Picture Test stories reveal some emotional disturbance as well as immaturity. The first story was neutral. She mentioned the figures shown including the mother. The mother figure was pictured only in the first card of the series; however, Kathy mentioned a mother in four of the stories she told. In each instance, the mother was someone to run to for help or someone who was whipping the child. In each story, after the first, there were sadness, conflict, fighting, whippings, storm, anger, fear, or danger.

Examples of her stories are: (verbatim) Story Four:

> Well one day these boys was going to take a walk--through the woods--and they was walking on this road and so one little boy he started up an argument and they started fussing and everybody started jumping on everybody and started a fight and one little boy who wasn't in it he went home and told his mother and his mother went and called up the rest of the mothers and told them about it and then all the mothers and fathers come out there and seen them fighting and went back and got a whipping.

Story Six was:

> One time me and my friend was walking and we come in the woods and it was dangerous and--because our mothers told us not to go out in the woods so we did anyway and so then we met up with a lion and then it scared my friend so that we ran back so hard that we gave out of breath and when we got back we told our mothers what happened and we got a whipping for going out in the woods and so we never did go out again.

The father, but not the mother, played games with the child. The father, but not the mother, read to and with the child. The father helped her with her home work. The mother said Kathy did not confide in her, but did confide in the father. When asked about discipline the mother said she nagged and tried to be firm. The father said, "I beat the slop out of her." When asked how often he whipped her, he said, "Twice this year already. She needs more than she gits."

The father reported that he gave the allowance to Kathy, a dollar a week. The mother added that Kathy gets all she wants. The father admitted there was much arguing and bickering in the home; and that he and the mother did most of it. When the child was asked the question, however, she said she did all the fussing.

If in some instances the high self concept score of the child is an indication of immaturity, perhaps the child is subconsciously trying to stay a "baby" in order to get closer to the mother for whom she seems to feel a need.

Case Study 3: Charles, Sixth Grade, Boy, High Self Concept

Charles was the youngest of his family. He had three sisters older than he. While the sisters were large for their ages, Charles was small, quiet, sweet, and apparently adored by the entire family.

The parents were in their middle thirties. The mother was short, stout, jolly, and relaxed. The father was tall, handsome and reserved. They had recently bought and moved into a larger modest country home where, they said, the family could relax and enjoy doing things together. The father had a business college diploma; the mother had finished high school.

Charles had scored himself 81 on the Self Concept Scale; the mother rated him 83, and the father 87, while the teacher's score was only 67. The mother, father, teacher, and child agreed that Charles was honest, fair, truthful, polite, clean, kind, likeable, and a good sport nearly always. Likewise, all four agreed that Charles was mean, lazy, selfish, and jealous just now and then. However, Charles, the mother, and the father considered Charles more favorably than did the teacher on the following adjectives: friendly, smart, helpful, good, cooperative, sincere, studious, loyal, useful, dependable, and happy.

On the Child Self Description Scale, Charles described himself by indicating the following statements were most like him: "get married someday;" "quick and active;" "lively, full of fun;" "willing to take chances;" "know how to do interesting things;" "get along with my teachers better than most kids do;" "get nervous when I talk to teachers;" "I like to run and play;" "my folks are interested in helping me with my school work;" "I take time to be sure I know the answer before I say things in class;" etc. Charles did not think himself "of a strong, solid build;" "goodlooking;" or able to "go up to a new pupil at school."

Charles was below the average for the total group of children on the Children's Manifest Anxiety Scale. His score was only 11, which indicated he was not anxious about many of the topics covered in the scale. Of the 11 items on the scale which had counted against him, he had qualified four by writing beside them "sometimes."

Charles went to Sunday School regularly and was a Boy Scout. If granted three wishes, he would have wanted a million dollars, a new car, and a new house. He said he would not want to be an only child. All through the interview and the review of the case, it was evident that

Charles came from a warm-hearted, loving family. One of Charles' Self Description items indicated he wished to get married later; another said his folks were interested in helping him with his home work.

Story number one on the Michigan Picture Test is indicative of a healthy attitude. It was as follows:

> Well, there was a little boy and he didn't want to eat his cereal. And his sister told him to eat his cereal. And that didn't do any good. So his mother came in and tried to get him to eat it. And she couldn't get anywhere. Then his father said, "Son, eat your cereal." And he ate it.

Charles said he went either to Mamma or Daddy if he had a problem. If he had to live on a desert island, he would take Mamma or Daddy with him. Of all the people he knew, he had rather be like his Daddy. The family had many outings together, stock-car races, visiting grandparents, fishing, and picnics.

The mother said Charles confided in her a great deal. In disciplining the child, the mother said all she ever had to do was to tell Charles to do or not to do something; he always complied.

Charles' stories on the Picture Test were short and uncomplicated. They revealed action more than plot. There was no general theme running throughout the series. The story for the blank card was interesting because of the way "one little boy" resolved his problems:

> Once upon a time there was a little bitty boy and he had a pony. He had always dreamed about a pony and finally he got one. And one day he went out to get on his pony and when he opened the barn he saw a great big horse and he got on the horse and the horse started running away and he fell off of it. An' then it knocked him out and when he woke up he saw his little pony there and he said he's never get on another horse again.

This child appeared to have no conflict within self or family. He was a child who conscientiously tried to please others. He was more immature than other boys his age in school, but his grades were acceptable, B's and C's.

Case Study 4: Sally, Grade Six, Girl
High Self Concept

Sally was an only child, a chubby blond, with a ready smile, and a cooperative attitude. Her weight problem caused much conflict in the family. The mother said Sally was a compulsive eater, however, the child had been under the doctor's care for several years for a thyroid disturbance. The doctor had dismissed the child and told the mother there was no medical reason why the child ate constantly. The mother shed tears discussing the problem. She said Sally refused to take any responsibility for her health. The child had scored one on the Children's Manifest Anxiety Scale. She had said that she worried about doing the right things. The mother's complaint was that Sally was not anxious about enough things.

The father had been killed in action in the Korean War. Sally and her mother lived with the grandparents and Sally's divorced uncle. From the age of two Sally had apparently been able to control her mother and grandmother by having temper tantrums.

Sally had scored herself 81 on the Self Concept Scale; the mother had rated her 78, the teacher 61. They all three agreed that she was not mean; Sally gave herself the best possible score on lazy, selfish, jealous, nearly always. The mother and the child thought the child was a good sport; the teacher did not think so. The teacher thought the child less studious than the mother and child considered her to be. As was generally true of the high self concept children, Sally and her mother were more in agreement than either the child and the teacher or the mother and the teacher.

During the interview the mother talked freely about her concern with Sally's immaturity. She said Sally still played with dolls and none of the other girls her age whom they knew played with dolls. Where the other girls were taking an interest in lipstick and boy friends, Sally was content to sit and eat.

Sally's I.Q. was 108 as measured by the California Test of Mental Maturity. Her grades in school had been A's and B's throughout the six grades. The father had been a college graduate; the mother had two years of college and a business degree from a local business college. The mother worked as a bookkeeper for a local firm.

Sally and her mother seemed to be congenial in their relationship. They went to Sunday School and church together, played games, went to movies together, watched television together, went on picnics, bowled, sewed, and the child confided in the mother without the mother having to probe. When the mother was asked what type of discipline she used with the child, she said she usually cried until the child was frightened into behaving.

Sally revealed immaturity in her three wishes. She wished for another dog, to have her ring fixed, and she said there was nothing else in the world to wish for. She said if she had to spend the rest of her life on a desert island, she would take her mother with her because she just wouldn't want to spend all her life with anyone else. The more mature children had wished for someone of the same sex and age to go with them.

Sally said she went to her mother if she had a problem; she spent most of her time with her mother. When asked "Of all the people you know which one had you rather be like," Sally replied by naming a classmate "because the classmate was so sweet and everything and everybody liked her." Sally said there was fussing in the home and that she did it; the mother also said the child did the fussing in the home.

On the Child Self Description Scale Sally's score classed her as more personally oriented than socially oriented. Some of the statements which Sally checked as LEAST like her were revealing of her self concept: "I usually pick out my own clothes;" "I'd rather figure things out for myself before asking for help;" "sometimes I can't make myself do things I like, even when I'm invited to do them;" "I'd rather do things with grown-ups -- it's boring to play with kids all the time." On the MOST like her statements she said: "I think most grown-ups are too strict;" "I think a lot about mistakes I've made." The other pentads revealed a similar pattern of dependence on adults.

Sally followed the same pattern as many of the other children who were included in the study: where the children had checked as MOST like them that they wanted to go to college, they had also checked as MOST like them that they were pretty sure of what they wanted to do when they were older.

When presented the Michigan Picture cards, Sally acted immature for her age. She giggled and twisted more than many of the fourth-grade children. The predominant themes in her stories were of mother and food. The first story told of a family rushing off to school because they were late, only to find when they got there that it was Saturday, so they went back home and went to bed.

The usual response of a mature sixth grader to the second card showing a boy and girl standing together is a boy-girl relationship in some form. Sally's response was more on the level of the immature fourth-grade child. This was her story:

> Could be a lot of different things. Oh, well. Once upon a time there was a little girl about thirteen years old. She ran away from home. Her big brother came after her, and talked her into going back home, and they all lived happily ever after.

On card three the children got "mad" about the checker game, but "Jack's mother called all the children to the kitchen to give them cookies and milk." In story four, a little boy's mother would not let him go fishing with some other boys because the mother wanted the boy to baby-sit for her. However, the other boys did not get to fish because the lake had a fence a mile high around it. Story five was prominent for the number of first person pronouns. Sally frankly said, "I am the person in it (a big electric storm); big brave me."

For the blank card, Sally told a story of talking animals and food. The story as she told it was:

> Can I tell about anything? Gee. All right. Once upon a time there was this giraffe named Herman. This giraffe was very unusual because he had purple dots with green stripes. He lived in the zoo. He didn't like the zoo because he felt he didn't get enough to eat at the zoo. Herman had been happy for a long time 'cause people could feed him peanuts. One day when Herman woke up he found a note over his cage which said, "Do not feed Herman. It is bad for his digestion system." In a couple of days his sister, Isabelle, came to visit Herman in the zoo. She was in the same cage. Herman was no longer sad because people can feed him now.

Case Study 5: Tim, Grade Four, Boy
Low Self Concept

Tim was alert, intelligent, polite, cooperative, and nice looking. He was clean and well dressed. The picture of the child and the family to the observer was generally quite favorable.

Tim's teacher had given him the highest possible score on the Self Concept Scale, 90. Tim thought he deserved only 63. The parents differed eight points from one another in their ratings of the child.

The father scored him 84, the mother, 76. An interesting comparison was made: Tim had a twin sister who scored herself on the Scale. She gave herself 89 on it. Why would children, twins, differ twenty-six points on the scale while the adults around them scored both of them high?

Tim scored very low on the Children's Manifest Anxiety Scale. Of the fifty-three items on the Scale, he indicated there were only eight about which he showed concern. They were: "I notice my heart beats very fast sometimes;" he said it always did when he ran too hard. "At times I feel like shouting;" he said sometimes he feels good and wants to play and shout. At the time he took the test (Scale), he was in the classroom; he checked that he wished he could be very far from there because he preferred to be home playing ball.

Tim's language I.Q. was 122, non-language was 101. His grades in school were A's and B's. He had a slight speech defect which made oral reading slow. He placed above his grade level in all the sub-tests of the California Achievement Tests.

Tim liked science; he wished to go to college and be a scientist; he was "pretty sure of what he wanted to do." He thought of himself as "quick and active;" "good at sports;" "willing to take chances;" "dependable and serious;" and "cannot be fooled easily." He read a lot for fun, spent a lot of time on his hobbies, had rather figure things out for himself before asking for help, and could take a joke on himself.

He did not, generally, he thought, do his work around the house without being told what to do. He did not spend a lot of time keeping neat and attractive. He did not have to be careful of his health, and he did not like to sing or speak in front of people. Tim's score on the Personal-Social Orientation on the Child Self Description Scale was 27, indicating greater interest in activities involving himself as compared with activities with other persons.

Tim belonged to the Scouts, the Boys' Club, and was a regular attendant at Sunday School. His three wishes indicated a high level of maturity for a nine-year-old boy. They were: "to be smarter than I am;" "my parents to have anything they want;" and "to be a mature man."

When he had a problem or needed help he went to his father. Tim spent most of his time with his family. If he had to live on a desert island, he would take his father with him, because "he knows how to set up camp, and about everything a person ought to know." When asked whom he had rather be like, he said, "My father, he's got a doctor's degree." (The father is a professor at the University of Georgia.) He said there wasn't much fussing in the home unless the kids brought home bad grades from school.

The home was in one of the newer subdivisions of the city, not the most exclusive subdivision but one of the better ones. The house was new and modern.. There was evidence of much reading and game playing. The mother was intelligent, charming, and gracious. For the interview she had coffee and cake ready. She was a Girl Scout Leader, an active worker in Sunday School, and active in P.T.A. and community services, but, she emphasized, not to the exclusion of her family. The family came first. The family did everything together.

When asked if either parent drank, the mother said, "No, and we gave up smoking when the children came because we couldn't see that it would ever be good for them for us to indulge in smoking." For discipline the mother said she just gave them a quick slap and it was over with; the father withheld privileges. The mother said she did most of the fussing in the home.

These parents were two of the few parents studied who came within the "Ideal" score as set up in Shoben's study. Each parent was within the "Ideal" range for each of the sub-categories and the total score.

Tim's Michigan Picture stories did not reveal any consistent pattern of themes. His second story was rather mature for a nine-year-old boy. The average fourth grader did not tell a story of romance, but rather told one of two children engaged in some activity. Tim's story was:

> It looks like these--this girl and boy--on a farm, and the boy's telling the girl that -- I mean he's asking the girl if she'll marry him I mean. And in the background it -- looks like -- sorta like wheat and beyond the wheat it looks like -- woods. And that girl -- is blushing, blushing slightly -- you know, like most girls do.

The blank card story revealed a happy family life.. Story six was:

> Last summer we went to -- Jekyll Island and had a good time there and we went to Peppermint Land. We went fishing and -- it rained the very first night we were there but the next day it was sunny and we went down to the beach and had fun in the waves and we stayed there five days. We had a lot of fun.

Case Study 6: Janice, Fourth Grade, Girl
Low Self Concept

Janice was small for her age, blond, quiet, shy. The teacher's comment in the school folder had been: "Janice is capable and well behaved." Her I.Q. was 101; her grades all A's and B's

As was often the case with the children tested, Janice's score on the Self Concept Scale was close to the score of one of the parents. In Janice's case it was the father's score which resembled hers. Janice had scored herself 75; the father's score was 75; the mother's score was 85; and the teacher's score was 88. The mother, father, teacher, and child agreed that Janice was honest, truthful, clean, cooperative, sincere, studious, loyal, dependable, and happy; all four agreed she was not mean. The father thought she was lazy, selfish, jealous, and bashful. Janice did not think herself as being friendly, smart, kind, good, likeable, or popular as the three adults thought her.

Janice liked art, and would like to be an actress and travel a lot. She thought of herself as being slow-moving, easygoing, good at sports, capable of making people laugh, able to make up her mind quickly, and not easily fooled. She thought people hurt her feelings a lot. Janice's score on the Personal-Social Orientation was 17, indicating relatively greater interest in social activities than most children.

Janice's score on the Children's Manifest Anxiety Scale was above the mean for the forty children tested. Her score was 26; this indicated the child was anxious about many things. Some of the outstanding anxieties were: "others seem to do things easier than I can;" "I am secretly afraid of a lot of things;" "I feel alone even when people are around me;" "I worry most of the time;" "I worry about what other people think about me;" "I have worried about things that did not really make any difference later;" "my feelings get hurt easily;" "I worry about doing the right things;" "I worry about how well I'm doing in school;" "I'm afraid of the dark;" "I worry when I go to bed at night;" "I often worry about what could happen to my parents;" "I have bad dreams;" and "I am nervous."

Janice was the oldest of three children; the brothers were ages seven and three. Her wishes were: "I wish I had some sisters; I wish I lived in town; and I wish I were grown."

Janice said she went to her mother first if she had a problem or needed help, then to her Daddy. She said she spends most of her time with Mamma and Daddy. If she had to live on a desert island, she would rather take her Mamma with her (no reason given). She said she had rather be like her Mamma than anyone else she knew because she loved her. She liked best to help her mother in the house.

Janice's home environment was unusually meager. Many things which are taken for granted in homes today were lacking in this one. For instance, one room had no floor, only the dirt of the earth on which to walk. There were no screens on the windows. There was not only no front porch, there were also no front steps. The door was high from the ground in the front of the house (on the ground in the back), and a large rock had been placed before the opening. It was a difficult task to climb into the house.

This opening was to the kitchen, one of the two rooms used by the family. The kitchen was 9 by 12 feet. There was a wood stove on which to cook, an oilcloth covered table, two benches, and a cupboard in the room. On the stove was a pot of something boiling for supper, on the table a "pone of cornbread."

The bedroom was also a 9 by 12 foot room. In this small room were crowded a bunk bed on which all three children slept, a double bed for the parents, a "chifferobe," a sofa, a vanity with a large mirror, an open ironing board, and a television set. The third room, the one with the firt floor, was used to store trunks and boxes. The entire house was clean.

The house was off the main road, and the school bus did not go down the road when it rained. Therefore, the children were frequently absent from school. They ate the free lunches provided by the school for children who could not pay.

The father was a carpenter. His job was to rebuild drink crates for a local bottling company. He was of a small build, friendly, but extremely shy. He seemed eager to cooperate with the study being made. The mother was young, frail, and almost pretty. She asked many questions about the nature of the study. She seemed to try to hold the interviewer in conversation longer than was necessary as if she were lonely for company. The mother had withdrawn from school in the ninth grade, the father in the seventh.

The father belonged to a Baptist church, the mother to a Holiness church. The family did not attend either church regularly, but they stated that they had a family altar when they read from the Bible as a family group each night.

The family went visiting together, usually to see the grandparents. There was no money for pleasure trips. There was no car in which to ride. The parents seemed fond of the children, desiring to give them advantages they had never had. Both parents scored above the "Ideal" score on the Parent Attitude Inventory in every category.

Janice's Michigan Picture Test stories were revealing. Stories one and six suggested her preoccupation with having enough to eat: Story one was:

> Well, there was this little boy and his family eating and his--he thought he had to have a lot of food on his plate so his daddy didn't like it and his mamma didn't either. And he said he didn't like it when he didn't have enough food on his plate. So he started eating. And they were--and he started eating and he got so much food there wasn't hardly enough food for all of them. And he got a spanking that night and he never did do it again.

Story six was:

> Well, there was this little boy and girl who owned a little lamb and everywhere they went this little lamb wanted to go and so they went to town one time and it wanted to go there and so the man ran it out with a broom and told it to go home and so it went home and they went to town to the grocery store to buy some groceries and this little lamb wanted to go in there and they wouldn't let it. The man who owned the store threw a can of food at it and it learned its lesson and so it never did go anywhere again.

Two of the stories suggested a need to be reassured by the mother, as indicated by stories three and four. Story three was:

> Well, there was these people playing checkers and so one of them beat and the other one got mad and they had a fuss and they went and told their mamma. Then they had to settle it, and then they played it again. And they didn't fuss no more.

Story four was:

> Well, there was these people walking down the road and there was this big ol' farm yard so they went up there and they got to ride the pony and they liked it and there was this little bitty boy. He didn't know how to ride no pony and he got mad and started crying and then he went home and told his mamma and his mamma bought him a little pony and he started riding it. And he had a good time.

Perhaps Janice's low self concept was a reflection of her father's concept of her, or perhaps it was a result of a sincere attitude of humility, or perhaps the child was acutely conscious of the state of poverty in which she lived.

Case Study 7: Mike, Grade Six, Boy
Low Self Concept

Mike appeared to be well-liked by everyone, vivacious, energetic, alert, and attractive. Mike's teacher reported on the Self Concept Scale that Mike was about one-half the time careful, lazy, and studious. This made the teacher's score 87. Mike's father said Mike was not always cheerful, and about half the time careful, brave, and helpful; the father's score was 85. Mike's mother followed about the same pattern, except that she added he was about one-half the time kind and studious. The mother's score was 81. Mike thought he deserved only 56 on the scale. Only on three of the 25 positive adjectives did he give himself full credit. It might be said from the beginning that Mike's case was apparently one of humility. He admitted that he did not score himself any higher than he did because he did not wish to appear to be "showing off."

Mike was a B student in school; his I.Q. was 116 as scored on the California Test of Mental Maturity. His mother had been to business college; his father had finished high school. The parents both worked and they had recently moved into one of the better subdivisions of the city. Mike was the oldest of three children.

On the Child Self Description Scale Mike indicated he liked science, wanted to go to college and become a scientist; he was "pretty sure of what he wanted to do when older." He thought he was of a "strong, solid build" and good at sports. He knew many people, had good ideas, and a good memory. He liked to be the leader in games, but it didn't bother him to lose at games. He spent a lot of time on hobbies. He could take a joke on himself without feeling bad. He thought his folks were interested in helping him with his home work, and he did not think most grown-ups were too strict. He did not think people considered him nice looking. People did not hurt his feelings a lot, and he did not spend a lot of time keeping neat and attractive.

On the Child Self Description Scale the picture of the child was more congruent with the picture the adults had of him than on the Self Concept Scale. Here the child could truthfully give a picture of himself as a desirable person without feeling that he was showing off or bragging.

Mike was slightly above the mean of the other children on the Children's Manifest Anxiety Scale. His score was 24. He said he got nervous when anyone watched him work; he got nervous when things did not go the right way for him. He often worried about what could happen to his parents; he worried about how well he was doing in school; he worried about what was going to happen; he worried about doing the right things; and he worried about what his parents would say to him.

Mike attended four organizations: two church groups, Little League, and Boys Club. Of his three wishes, his second wish was for his mother: he wished she could have a new washing machine. His other two wishes were for material objects for himself. He wanted more coins for his collection and a shotgun. He said he would not want to be an only child because that spoils you.

When asked to whom he goes if he needs help, Mike said, laughing, "Not Daddy; he hits first and asks later. I'd go to the police." However, the picture of the father that others saw was not a violent one. The mother reported that the father was firm, but not too stern.

When asked whom he would take on a desert island, he said, "I wouldn't want to take just one person; we'd get bored, but if I HAD to take just one I'd take Charley." (Charley was the same age and sex as Mike.) When asked whom he would like to be like, he replied, after some consideration, "I believe I'd rather be like myself. I could improve, but I sort of like being me."

Mike enjoyed playing football, hunting and fishing with his father. He enjoyed helping his mother make cookies. When asked if there were much fussing in his home, he said, "Oh, man! And I start it all!"

The first story in the Michigan Picture Test was of an average family eating breakfast. The story was:

> Well, that's a average family gathered around a breakfast table and the mother is Jane and she's serving Johnny a bowl of porridge or something and the father is Roy and he's drinking a cup of coffee and reading the morning paper and Carol's over there kinda looking jealous at Johnny 'cause she's not getting much attention. And they're 'bout ready to go out and meet the bus and go to school. Eating breakfast and tha's all.

The second story showed a maturing interest in romance. It was:

> Well, these are kinda like (giggle) little hillbilly children out on a farm this -- the boy he kinda likes the girl and they're out in the woods talking and everything and the girl's bashful and he's trying to get her to go to the show or something with him. Well, she'll probably accept and they'll be happy and go to the show and see a good movie and then come home and have a good time.

Story four told of happy boys walking through the woods. On story five he told of an electrical storm, but no one was hurt.

Story six (blank card) was his idea of a joke on the tester. It was told with a twinkle in the eyes and "a tongue in the cheek." He had heard the other boys who had had the test discussing it, and Mike had pre-planned his story. Here it is:

> Well, this is a picture of a white kite drawn on a sheet of paper (giggle) white sheet of paper and some little boys are done in white and it's Bill, Joey, Harry, and Dick. They're looking up in the sky and they see ever -- they see a white bird flying over and saw a white cloud (giggle) and everybody is throwing white rocks at him and the white bird is diving at the white outline of the boys. And the bird -- the white bird tries to get away from the boys.

Case Study 8: Dixie, Grade Six, Girl
Low Self Concept

Dixie was an unusually attractive, intelligent (I.Q., 126) girl, pretty by almost anyone's standard. She was the oldest of three children. Her home was located in the newest, most exclusive section of town; her father was an outstanding physician, her mother a leader in the church and community, with two college degrees.

On the Self Concept Scale the teacher had scored the child 87; this was a higher score than either parent gave her. The only marks the teacher gave below the most desirable possible description were that she was bashful, and not always brave. The mother's score was next in descending order, 82; she thought Dixie was lazy, not always thoughtful, studious, or happy. Dixie's father scored her 78. Only about half the time did he see her as friendly, thoughtful, brave, careful, lazy, selfish, helpful, cheerful, jealous, and a good sport. Dixie's estimate of herself was only 59. She had checked "about half the time" twenty-one of the thirty adjectives. On the lower extreme of the scale, she did not think she was thoughtful, brave, cooperative, or useful. Only on three adjectives did she give herself full credit. They were: friendly, cheerful, and happy. She thought she was nearly always bashful.

Why did Dixie see herself as so different from others' views? There could be several possible explanations. Let us examine the Child Self Description Scale in order to get a clearer picture of the Dixie that Dixie saw.

Dixie said she wanted most to go to college, and was pretty sure of what she wanted to do when older. She did not care about making a great deal of money. She would like to be an actress, thought she could make people laugh, was good at sports, quick and active, lively and full of fun, and got very excited about things. She said it was hard for her to be nice to people she did not like. She thought a lot about mistakes she had made, was practically never sick; when she read very sad stories, she could not help crying a little. She usually told people when they did something well. She did not think grown-ups were too strict, and did not have a lot of bad dreams.

Dixie scored 16, which was below the average of the other children on the Children's Manifest Anxiety Scale. She worried about what her parents would say to her, especially her mother. She worried about what other people thought of her, especially her mother. She was sensitive; her her feelings got hurt easily when she was scolded.

Dixie belonged to several clubs. Her wishes showed a high level of maturity. Her first wish was: "I would like for us to hurry and finish the church we are building."

In the interview with Dixie a possible explanation of her low self concept began to emerge. She seemed to be rejecting her mother and clinging to her father. The mother admitted that she was too strict and critical toward the child. The mother and father had discussed the situation, and the mother was making an effort to be less severe. The relationship was not, at that time, too strained. The child and mother each reported the activity they liked most doing together was bicycling. They did many things together, such as participating in church activities and shopping. However, when asked to whom she went when she had a problem, Dixie said she went to her Daddy because he did not fuss. When asked whom she would take on a desert island, she said, "Daddy. I like him better than anyone else." She had rather be like a science teacher (female) than anyone else she knew.

The mother said the child did not confide in her easily, but did in the father. When asked how the child was disciplined, the mother said she could not reason with her, but the father could. The mother resorted to withholding the allowance.

The most revealing picture of the child and the child-mother conflict was shown in the Michigan Picture Test. In story one the jealousy of the child toward her three-year-old brother is evident, as is her feeling that the mother didn't want her:

> Well, one morning at breakfast the little--there was a little boy in the family--he didn't want to eat his breakf-cereal so the father got real mad and he said if he didn't he was going to punish him but the mother came in and she had a lot of patience so she tried to feed it to him. So the sister just got fed up about it too because he kept on spitting it out. Well, the father got real fed up about it too and he was real nervous and everything because he was waiting to find out how he made out in his stock markets that morning so he grabbed the paper but the little boy had already spilled grape juice all over the paper. But he read it anyway in the grape juice. So the mother kept on feeding the boy and the boy kept on spitting it out. He said he wanted some popcorn for breakfast. And coca-cola. But the mother said he had to eat his cereal first because if he didn't eat his cereal he wouldn't be strong and healthy and he said he didn't want to be strong and healthy because he want--he liked popcorn and coca-colas. But the mamma kept on insisting so he took the bowl and he put it all over his father's head and it came all down in his father's face and the father got mad and he went out and got another paper and he never came home again. And the sister was over there sitting very quiet and everything but she didn't like what her brother was doing. She didn't like what her mother was doing because she thought her mother petted her little brother too much and she got REAL mad at her mother cause her mother petted her little brother so much. And she went over to her mother and she told her that she was going to leave home because she didn't like the way she was treating her and her mother said it was all right cause she didn't want her so the little girl ran off.

In story two a girl went off with a stranger. A young boy she knew found her lost in the woods:

> He said, "What are you doing out here?" And she said, "Oh, this man brought me out here and I just thought I would stay out here because I didn't want to go home anyway." And he said, "Well, you should go home." And she said, "Well, the reason is because I don't want to see my mother and my mother told me never to go off with strangers and I went off with a stranger and she'll probably get mad with me." He said, "Well, won't your father?" And she said, "No, he doesn't care." He said, "Why?" She said, "'Cause he thinks I'm a big girl and my mother thinks I'm still a baby. She always gives me baby cereal for breakfast anyway." "I don't know what to do--don't you think you had better go home anyway?" And she said, "Oh no, I could never go home. You have to bring me some food 'cause I'm getting awful hungry."

Story three tells of parents who go off to Europe and leave their children with a strange lady. Story four tells of a father who goes off to war and the mother went off to war too. Finally the little boys went off to war too and all were killed. In story five lightning first hit every other house in town; finally it hit the home of the family and everybody in it was killed.

Story six was:

> Once upon a time there was this little girl and she wanted to have a dog real, real bad but her mother didn't like dogs and' her father didn't mind having a dog either because he was once a boy. He loved dogs but --her mother didn't want one at all. And she just wanted a dog so bad and so she decided that she'd have to do something to get a dog. So one night she pretended like she was real, real sick and she said, "Oh Mother, I feel so bad." And so they took her to the hospital and nothing was wrong. And so she did that about four or five times to see if she could get a dog and her mother got real fed up with her and told her that any time that she'd m-m couldn't even--her mother was gonna give her a cat because she didn't mind cats too much. But then she said, "I'm not even going to give you a cat because you played this trick and it wasn't very nice and I'm ashamed of you." So one night the child got real, real sick and she told her mother and her mother said, "Now look, um, Susie, we--I'm not going to fall for this trick any more so you just go back up to bed." And the next night she was real, real sick and she was real sick and she kept on saying she was for about a couple of weeks and her mother said, "I'll take you to the doctor but if you're fooling this time--" and she took her to the doctor and when she got to the doctor's she was real sick and they thought she was going to die. And she--she'd only live that one day. So they took her home to live that one day and the mother--and her mother bought her about m-m hundred dogs and put 'em all around her bed and bought her another hundred dogs until they filled up her whole room. And she died happy.

SUMMARY

In the cases of the children with high self concepts it seemed that one or both parents, and often the entire family, were allowing the child to remain more infantile than was warranted by his age. In general, the high self concept children were immature for their ages, somewhat conceited (or overconfident), and generally not as well received by adults as were the low self concept children. This condition may not have been true of the majority of high self concept children not included in this study. Many children may have high self concepts because they are in fact fortunately endowed with the qualities and abilities the instruments used in this study were endeavoring to measure, and the adults near the children may have agreed with the children. However, in the present study the children with high self concepts were those children whose teachers scored them ten or more points lower than the children scored themselves on the Self Concept Scale.

The low self concept children were generally more mature than the high self concept children. They were children who revealed a sense of humility which apparently pleased the adults around them. In some cases it seemed that the children realized they were superior to the ratings they gave themselves; however, they were reticent to appear "boastful" and so tended to be self-effacing. Other children seemed honestly to think low of themselves because they seemed to be reflecting one parent's opinion. This latter case was rare because in general, where the teacher had scored the child high, the parents had also scored the child high.

In some cases the ratings of the teachers could be questioned. Teachers are fallible and can be incorrect in judging some children. In the majority of cases, however, the teachers' ratings seemed justifiable.

There was no child in this study who appeared maladjusted to the point of needing professional help with his problems. It is likely, however, that the low self concept children, if seen in extreme cases of self-effacing, self-degrading attitudes, might be considered as potentially neurotic. On the other hand, the conceited, high self concept, boasting children, if seen in extreme cases, might be classed as potential psychopaths.

CHAPTER VI

SUMMARY AND IMPLICATIONS

This research project was concerned with the self concepts of fourth- and sixth-grade pupils in relation to academic achievement, intelligence, interests, and manifest anxiety. The following objectives were set forth:

1. To determine the self concepts of a group of fourth-grade children and a group of sixth-grade children.
2. To measure the academic achievement, intelligence, interests, and manifest anxiety of the groups of children selected for the study.
3. To compare the self concepts of fourth- and sixth-grade boys with those of fourth- and sixth-grade girls.
4. To compare the self concepts of fourth- and sixth-grade children.
5. To determine any relationships which exist between the self concepts of fourth- and sixth-grade children and their academic achievement, intelligence, interests, and manifest anxiety.

The following hypotheses, grouped within logical categories and stated as null hypotheses, were set forth:

Self concepts

1. The self concepts of fourth-grade boys are similar to those of sixth-grade boys.
2. The self concepts of fourth-grade girls are similar to those of sixth-grade girls.
3. The self concepts of fourth-grade boys are similar to those of fourth-grade girls.
4. The self concepts of sixth-grade boys are similar to those of sixth-grade girls.

Relationships of self concepts to selected variables.

5. There is no significant relationship between measures of the self concept and measures of academic achievement among fourth- and sixth-grade pupils.

6. There is no significant relationship between measures of the self concept and intelligence test scores among fourth- and sixth-grade pupils.

7. There is no significant relationship between measures of the self concept and manifest anxiety among fourth- and sixth-grade pupils.

8. The interests of fourth- and sixth-grade pupils are not significantly related to self concepts.

Differences in relationships of self concepts and selected variables.

9. The correlations between self concepts and intelligence factors, achievement variables, interest scores, and manifest anxiety scores of fourth-grade boys are not significantly different from the correlations of these several variables for fourth-grade girls.

10. The correlations between self concepts and intelligence factors, achievement variables, interest scores, and manifest anxiety scores of sixth-grade boys are not significantly different from the correlations of these several variables for sixth-grade girls.

11. The correlations between self concepts and intelligence, achievement, interests, and manifest anxiety of fourth-grade boys do not differ from the corresponding correlations of sixth-grade boys.

12. The correlations between self concepts and intelligence, achievement, interests, and manifest anxiety of sixth-grade boys do not differ from the corresponding correlations of sixth-grade girls.

Self descriptions.

13. In describing characteristics most and least like themselves, the patterns of self-description of fourth-grade boys, fourth-grade girls, sixth-grade boys and sixth-grade girls are not significantly different from that to be expected by chance. Stated differently, where five choices are presented, one fifth of each group will select each option as being most and least like themselves.

14. In describing characteristics most and least like themselves, the patterns of self-description of fourth-grade boys are similar to those of fourth-grade girls.

15. In describing characteristics most and least like themselves, the patterns of self-description of sixth-grade boys are similar to those of sixth-grade girls.

16. In describing characteristics most and least like themselves, the

patterns of self-description of fourth-grade girls are similar to those of sixth-grade girls.

Case studies.

18. A comparison of circumstances of selected pupils who have relatively low self concepts as compared with relatively high teacher opinions (rated with the same instrument) and circumstances of selected pupils who have relatively high self concepts as compared with relatively low teacher opinion will reveal differences.

The following limitations of the study were described: (1) temporal, (2) geographical, (3) methodological, (4) semantic, and (5) those imposed by the maturity level of the subjects. The subjects of the study consisted of fourth- and sixth-grade pupils from the white elementary schools of Clarke County, Georgia. The self concepts of the pupils were measured by the self-reported responses to a set of descriptive adjectives and by responses to the Michigan Picture Test, a projective device. Pupils also responded to a forced-choice Self-Descriptive Scale which asked for descriptions of traits most and least like themselves within a pentad or set of five possible responses.

A comprehensive review of the most pertinent studies concerned with the self concept was presented around the following categories: (1) definition and interpretation, (2) methods of measurement of self concepts, (3) development of the self concept, (4) discrepancy between the self and ideal self, (5) discrepancy between self estimates and other estimates, (6) self acceptance and acceptance of other, (7) self concept and mental health, (8) phenomenal self and academic ability, and (9) relation of self concept to anxieties, interests, and wishes.

Four schools from Clarke County, Georgia, were chosen to represent a cross section of the white population of the county. A total of 605 pupils were administered four group paper and pencil tests: Self Concept

Scale, Child Self Descriptive Scale, Children's Manifest Anxiety Scale, and an interest inventory, What I Like to Do. From these 605 pupils, a random sample of 271 pupils were administered the Michigan Picture Test individually. In addition, the following data were obtained from the school records: California Achievement Tests scores, California Test of Mental Maturity scores, and school grades.

The hypotheses were tested statistically by comparison of means, the "t" test of differences in means, correlations, and chi-squares.

The findings of this study have been reported in the form of tables, and figures, and related discussion in Chapter IV. The discussion which accompanies the findings has been arranged in order corresponding to the hypotheses. The major findings relating to the different hypotheses have been briefly summarized in the subsequent presentation for the four groups: fourth-grade boys, fourth-grade girls, sixth-grade boys, and sixth-grade girls.

Hypotheses one through four related to self concepts. The results revealed that the mean self concept of fourth-grade boys was lowest and the mean self concept of sixth-grade girls was highest. The order from lowest to highest in both the self concept and the self ideal concept was fourth-grade boys, sixth-grade boys, fourth-grade girls, sixth-grade girls. The variability of boys on both measures was greater than that of girls at both grade levels. Hypotheses one and two which were related to developmental differences within sexes were accepted, while hypotheses three and four which were related to sex differences by grades were rejected. At both grade levels, girls had significantly higher self concept ratings. Sixth-grade girls also had a significantly higher mean self ideal concept than did sixth-grade boys.

On the personal-social orientation variable of the Child Self Descriptive Scale, the means for all groups were remarkably similar with a slight leaning toward personal orientation. All differences were statistically nonsignificant from chance expectancy.

On the Children's Manifest Anxiety Scale, sixth-grade girls had the lowest mean (17.34) with fourth-grade girls having the highest (21.33). The difference between girls at the two grade levels was statistically significant; also, the mean anxiety score of fourth-grade boys and girls combined was significantly greater than the mean anxiety score of sixth-grade girls and boys combined. All other differences were nonsignificant.

Responses to the Michigan Picture Test were rather similar for the four groups. All groups scored within a pattern which could be described as being comparable to the groups on which the norms were based, with the exception that there seemed to be generally more emphasis on the use of the past-tense verbs rather than the present-tense verbs for the samples of this study as compared with the norm groups. Only the tension index variables revealed significant differences among the several groups. Sixth-grade boys expressed a significantly greater mean percentage of love needs than did sixth-grade girls; and both fourth-grade groups expressed significantly greater mean percentages of love needs than did their sixth-grade counterparts. Likewise, the fourth-grade groups combined expressed significantly fewer submission needs than did the sixth-grade groups combined.

Results of the What I Like to Do interest inventory were presented in the form of figures which depicted the means and standard deviations on the eight subscales for each of the four groups. All groups corresponded fairly closely to the national norm groups except for the sixth-grade girls, who scored generally below their counterparts in the norm group in most areas. Boys at both grade levels were significantly more interested in active play than girls and significantly less interested in art, music, and home arts. Sixth-grade boys were significantly more interested in manual arts than sixth-grade girls. With respect to grade differences, fourth-grade boys and girls expressed greater interest in all eight subscales and the combined inventory than their sixth-grade counterparts. The differences for the girls were significant in all eight categories and the total. Boys at the fourth-grade level expressed significantly greater interest in social studies, active play, quiet play, home arts, science, and the total inventory.

Hypotheses five through eight stated that there is no significant relationship between measures of the self concept and measures of achievement, intelligence, manifest anxiety, and interest.

Pearson product-moment correlations between self concept and intelligence factors were mostly low to moderately positive. Correlations for fourth-grade boys and sixth-grade boys were significant from zero in a positive direction, ranging from .278 for total I.Q. for fourth-grade boys to .411 for total I.Q. for sixth-grade boys. Non-language I.Q. had a higher relationship with self concept for fourth-grade boys with language I.Q. being most closely related for sixth-grade boys. The relationship for girls was not significant from zero, being positive in the case of fourth-grade girls and very close to zero for the sixth-grade girls.

Correlations of achievement factors and self concept present a picture similar to that of intelligence: significant positive correlations for girls. Thirteen of the 14 correlations for boys were significant, ranging from .211, non-significant for self concept and spelling for fourth -grade boys, to .525 for self concept and English for fourth-grade boys. Only one out of 14 correlations for the two girl groups was significantly different from zero, that of .285 with reading comprehension for fourth-grade girls. When the two groups were combined, 13 out of the 14 correlations were significantly positive.

Correlations between self concept and interest factors were mostly negligible. An exception was in the case of fourth-grade girls where all correlations were moderately positive, ranging from .305 for home arts to .444 for art. Sixteen out of 54 correlations were significant from zero with nine of these occurring in relationships for fourth-grade girls. Eighteen correlations were negative including the significantly low negative correlations between self concept and active play for sixth-grade groups combined of -.172 and manual arts of -.181.

Correlations between self concept and manifest anxiety were consistently negative ranging from -.216 for sixth-grade girls to -.458 for sixth-grade boys. All correlations were significant with the exception of that for the sixth-grade girls.

Correlations between self ideal concept and intelligence were moderately positive for all groups except the sixth-grade girls. Correlations between achievement factors and self ideal concept ranged from -.071 to .577. There were six negative correlations none of which were significant and all but one of which appeared in the case of the fourth-grade girls. Correlations between achievement and self ideal concept were consistently positive and significant for boys at both grade levels with the exception of the arithmetic fundamentals for sixth-grade boys and all except one (arithmetic fundamentals) in the case of sixth-grade girls.

Correlations between self ideal concept and interest factors were largely negligible. Only three very low negative correlations were significant. These were as follows: science and self ideal concept for sixth-grade boys: -.225; science and self ideal concept for sixth-grade groups combined: -.184; active play and self ideal concept for sixth-grade groups combined: -.166. Nine correlations out of 27 were negative for the fourth-grade groups; whereas 24 out of 27 relationships were negative for the sixth-grade groups.

Correlations between self ideal concept and the manifest anxiety scale were insignificant except that of -.357 for sixth-grade boys and -.279 for the sixth-grade groups combined.

Correlations between personal-social orientation and age were negative but significant only in the case of fourth-grade boys and fourth-grade groups combined, where they were relatively low and barely significant. In consideration of the greater variability in age of the fourth-grade boys it would appear that there was a slight relationship between greater social orientation for the older boys within the group. This relationship would accord with cultural expectation since increasing sociability seems usually to be a function of increasing age.

Only one significant correlation appeared between personal-social orientation and intelligence factors, viz., that of .240 between language I.Q. and personal-social orientation for sixth-grade boys.

Of the 54 correlations between personal-social orientation and interest, only three were significant from zero and these were very low. All of these involved the active play scale. In the fourth-grade group personally orientated boys seem to be more interested in active play (.253). At the sixth-grade level the very low _r_ of -.183 for sixth-grade groups combined suggests a very slight pattern of greater interest in active play for socially oriented boys. Some indication of the relation between interest patterns and personal-social orientation was suggested by the fact that 11 out of 27 correlations at the fourth-grade level were negative whereas 23 of the 27 were negative at the sixth-grade level.

All correlations with the anxiety factors for personal-social orientation were negative. This suggests that the personally self-oriented child tends to have less anxiety. The Michigan Picture Test provided only one significant correlation with manifest anxiety, a negative correlation for sixth-grade girls. The only signigicant positive correlations with interest factors were with music scale for sixth-grade girls and for the sixth-grade combined.

All correlations with intelligence factors were positive with language I.Q. correlating positively (.393) with fourth-grade boys, .260 for fourth-grade boys and girls combined, .316 for sixth-grade girls, and .203 for sixth-grade boys and girls combined.

Twenty-five of the 42 correlations with achievement factors were significant. The correlations ranged from the significant negative correlation of -.293 (the only significant negative correlation) for English and tension index for sixth-grade boys to the significantly positive one of .485 between arithmetic reasoning and tension index for fourth-grade boys.

Correlations between the combined maladjustment index of the Michigan Picture Test and the age, intelligence, achievement, interest and manifest anxiety variable revealed no consistent pattern. For the fourth-grade boys, the only significant correlations were. 308 with language I.Q., .269 with reading comprehension, .322 with English and .268 for the total battery. There were no significant correlations between combined maladjustment index and all of these factors for the fourth-grade girls. Three significant correlations were apparent for sixth-grade boys: .422 with age, .257 with English, and .272 with social studies on the interest scale. For sixth-grade girls reading vocabulary, reading comprehension, English and total battery were correlated low and positively with combined maladjustment index and music interest, and a similar negative correlation between anxiety scale and the maladjustment index was obtained.

The subscales of the Michigan Picture Test revealed only a few significant correlations with achievement and intelligence factors among pupils at the fourth-grade level. However, the subscales were quite productive of significant correlations at the sixth-grade level. Generally the extra-punitive needs subscale correlated positively and the personal adequacy needs negatively with achievement and intelligence factors. These finding suggested that at this level perhaps extra-punitive or aggression needs may be translated into achievement, and that personal adequacy needs may indicate self-satisfaction even in the case of mediocre or low achievement.

Self concept was positively related to self ideal concept except in the case of fourth-grade girls. Highest correlation between self concept and self ideal concept was obtained for sixth-grade boys of .496. The only other significant correlation involving self concept was with the tension index for fourth-grade boys.

Hypotheses 9 through 12 referred to differences in relationships of self concept and related variables for the several subgroups. An inspection of the tables of inter-correlations indicated that in most instances differences in correlations for the several groups were not significant. An analysis of the correlations for self ideal concept and achievement variables indicated that the fourth-grade girls showed unique patterns. Significant positive correlations with self ideal concept were characteristic of most of the intelligence and achievement factors for the fourth-grade boys, sixth-grade girls and sixth-grade boys, whereas fourth-grade girls had no significant _r_'s for the achievement variables. No patterns were discernible of relationships or differences in relationships of personal-social orientation and the various factors analyzed.

Hypotheses 13 through 17 concerned the way in which elementary pupils described themselves on the _Child's Self Description Scale_. Hypothesis 13 stated that pupils will make an equal proportion of choices for the five options in describing what is most characteristic and what is least characteristic of them. This hypothesis had eight subhypotheses by grade and by sex for each of five option sets of 19 pentads. Hypothesis 14 concerned the similarity of self description choices (most and least characteristic) made by fourth-grade girls and fourth-grade boys, while Hypothesis 15 related to similarity of choices (most and least characteristic) of sixth-grade girls and boys. Hypotheses 16 and 17 pertained to similarity of choices by grade of boys and girls respectively. The frequency distributions of choices and the tests of these five major hypotheses were presented in a series of 19 tables corresponding to the 19 pentads included in the _Child's Self Description Scale_.

In summarizing the wealth of data pertaining to the children's self descriptions as indicated in the _Child's Self Description Scale_, the following points emerged. Of 76 equal-likelihood hypotheses concerning characteristics most like themselves, children indicated definite preferences, that is the choices did not fall within the expected pattern of twenty per cent or one-fifth for each option, since 73 of the 76 hypotheses were rejected. Some of the more obvious self-descriptions preferred are summarized in the following discussion. Of 76 hypotheses of equal likelihood of what is least preferred, 64 were rejected. Of the 19 hypotheses related to differences between distribution of first choices among boys and girls at the fourth-grade level, five were rejected and 14 were accepted. For the sixth-grade level, the results of the hypotheses of sex differences in first choices were nine rejected, ten accepted. Of the 19 hypotheses of sex differences at the fourth-grade level in last choices, five were rejected and 14 were accepted. Of the 19 corresponding hypotheses concerning last choices among boys and girls at the sixth-grade level, four were rejected and 14 accepted. Differences in distribution of the first choices between the boys at the fourth- and sixth-grade levels indicated that all 19 null hypotheses were accepted. Apparently boys at the two grade levels perceive themselves in quite similar fashions. Girls varied somewhat however in their distribution of choices, with seven of the 19 hypotheses of first choices being rejected.

The count of rejection or acceptance of hypotheses of no differences between boys and girls at the two grade levels in the distribution of last choices was as follows: boys - five rejected, 14 accepted; girls - seven rejected, 12 accepted.

Boys and girls at both fourth- and sixth-grade levels described themselves as quick and active, good at sports, lively and full of fun, pretty sure of what they wanted to do when they were older (which was, "likely to go to college.") They thought a lot about mistakes they had made, and felt that their ideas didn't always turn out well. The boys at both grade levels liked arithmetic, would like to become scientists or engineers, said they were willing to take chances, stick to a job until it is finished, and liked to run and play hard. The boys also said it was hard for them to be nice to people they didn't like, that they spent a lot of time on their hobbies, and that they liked to play in team games against other schools. Although the distribution of first choices of the boys at the two grade levels did not vary from the hypothesis of equal choices, the most frequently mentioned choices in four of the 19 sets varied with fourth-grade boys mentioning most often that they thought about dangerous things, their parents were interested in helping them with their school work, they had their best times with younger boys and girls, and that they took time to know the answer before they said things in class. Sixth-grade boys reflect a greater concern about school work in stating as most characteristic of themselves that they were not doing as well as they should in school work, that parents usually tried to give them the things they want, that they didn't like to borrow or lend things, and that they could take a joke on themselves without feeling bad.

Both groups of girls chose art as their favorite subject in school with arithmetic second best liked by fourth-grade girls and reading second in preference for sixth-grade girls. Girls of both grades gave actress as their preferred vocation, stated that they usually picked out their own clothes, and admitted that when they read a say story, they usually cried. Like fourth-grade boys, the fourth-grade girls stated that they stuck to a job until it was finished, spent a lot of time on hobbies, said their parents were interested in helping them in school work, and that they took time to know the answer before they said things in class. Unique as self-descriptions characteristic of this group were that they knew many people, didn't like their first names, got nervous when they talked to teachers, and that their friends spent a lot of time at their house. Sixth-grade girls gave several unique responses (that is different from the other groups). They stated that they got very excited about things, that they spent a lot of time keeping neat and attractive, that they would rather figure things out for themselves, and they usually told people when they (the people) had done something well.

In their self-descriptions of what they consider as least characteristic or least important to them, the four groups of pupils showed considerable agreement. All four groups, both boys and girls at fourth- and sixth-grade levels agreed that getting a job right after high school, looking older than their ages, making up their minds quickly, a dislike for trying new games at parties, liking to sing or speak in front of people, and thinking that grown-ups are too strict were LEAST characteristic of them. All the groups except the fourth-grade boys stated that being bothered a lot to lose at games was least like them; stated positively, these boys and girls did not seem to take winning games as extremely important. All the groups except the fourth-grade girls say that being the one who usually thinks up new things to do, generally doing their work around the house without being told what to do, and not caring much about dogs or other pets was LEAST like them. All groups except sixth-grade boys stated that not being able to be fooled easily was least like them; stated differently, they apparently admitted to being fooled fairly easily. Both groups of boys like the vocation of engineer best, and also said that usually being able to get kids to stop arguing and make up was least like them. Girls at both grade levels agreed that science was their least-liked subject in school, and that willingness to take chances was least like them. Fourth-grade boys and fourth-grade girls gave similar responses in stating that "some kids think I'm too bossy" and "people seem to think I'm rather nice looking" are LEAST like them. Sixth-grade boys and girls agree in that having a lot of bad dreams and working on projects to raise money for school and community drives is LEAST characteristic of them. Among responses unique to a particular group were the responses of the fourth-grade boys in selecting reading as least-liked subject, not liking their first name, and spending a lot of time keeping neat and attractive as not very characteristic of them. Fourth-grade girls stated that usually being chosen to be in plays and programs, helping at home to decide what the family was going to do, and not liking to borrow or lend things were among characteristics they are least likely to possess. Sixth-grade boys mentioned history as their least-liked subject most frequently and usually being a leader in groups, and getting very excited about things as items not characteristic of them. Sixth-grade girls chose as traits or characteristics which they deem to be least like them the following items: being good in school work, and liking to play in team games against other schools.

EDUCATIONAL IMPLICATIONS

The emphasis given in this study to the self concepts of pupils has important educational implications. Certainly it makes a great deal of difference whether a teacher is most concerned about Tom's reading level or about how Tom feels about himself as a person. The teacher's philosophy finds expression in many ways; it affects the lives of all the pupils with whom she comes in contact. The right of every person to reach his highest fulfillment is a value that challenges the efforts of all those concerned with the school program.

The pupil's self concept is an outgrowth of his experiences; it is achieved largely through contact with others. Thus, the pupil's self concept is dependent upon the quality of the people with whom he has been associated. This in itself is extremely important. If the teacher feels inadequate, or has an unrealistic concept of himself and his role as a teacher, the pupils' self concepts will be adversely affected.

According to perceptual psychology, behavior is a function of perception. How a person behaves is, then, consistent with the structure of his perceptual field at the time of his action. This means that as a person sees he behaves. Perception furnishes the materials out of which the self emerges and grows. Of special importance in this connection are the assumptions made about the needs of the individual. These needs have been catalogued and stated in many ways, although the need to maintain or enhance the self seems to be the basic drive. This is closely related to Maslow's theory of the hierarchy of needs which embraces the need for self esteem and the need for self actualization. Accordingly, the behavior of the fourth- or sixth-grade pupil must be consistent with his need for maintaining the present status of the self or of enhancing the self.

Since the self is established and nourished through the perceptive process it is important to the teacher and others to better understand the structure of the perceptual field. The key to the structure lies in experience. Since no two pupils have had identical experience throughout their lives, wide variations will be noted in their perceptual field. The structure of the pupil's perceptual field will depend upon his beliefs, values, attitudes, self concept, and concept of others. The pupil's experience is made up of a variety of important types at home, school, playground, and elsewhere.

If behavior is a function of perception, a rich perceptual field should make possible a wider range of available behavior and thus more efficient behavior. This contributes to intelligent behavior. Intelligent behavior is made possible because there are choices to be made. The choices that the pupil makes will depend upon his experiences and purpose. A rich background of experience furnishes a wider range of possible choices. But experience alone does not account for the choices that the pupil will make. The additional element which determines what the pupil perceives is purpose. There is evidence from many recent studies in psychology to show that living tissue is active, that life consists of purposive behavior, that the child is not a passive creature to be molded according to the will of a parent, teacher, or other person who would act as a dictator.

Once the perceptual field is structured it has an important bearing on the future structure. The role of the teacher is most important in its effect upon the pupil's perceptual field and in helping him structure his future perceptual field. Just as the concept the individual has of himself is important in relation to his educational achievement, the view the teacher has of motivation is important in relation to teaching. The view of Maslow and others that each individual has a basic need to grow which does not have to be forced implies that the function of the teacher is to guide and direct the child in his growth toward self-actualization. Teaching and learning become, then, a matter of working with the pupil in a positive rather than a negative manner.

The natural thrust of self motivation may be seen in the interests, orientations, and self concepts of fourth-and sixth-grade pupils. The relationship found between self concepts and interests lend proof to the notion that the task of the school is to create conditions conducive to desirable educational growth rather than that of simply motivating students by any means available toward better achievement.

The child's self concept is achieved. It develops out of his experiences in his physical and social world. It is influenced by the quality of his relations with others - family, peers, friends, teachers, and others with whom he comes in close contact. A healthy self concept develops out of a social setting that is desirable and wholesome. Growth is stunted in an environment not favorable to development of a healthy self concept.

A factor that frequently makes teachers impervious to the different selfs found in a classroom is the crowded classroom which lends itself to regimentation and mass production. Pupils become numbers in special seats assigned to them and dealt with in a regimented and frequently autocratic manner. They are fed a body of facts, frequently at the same rate. But unfortunately for this process, pupils differ widely; they cannot digest the facts or incorporate the skills into established skills at the same rate. Modern teaching devices have been introduced, frequently in an effort to expedite mass production procedures. Such devices, although useful in the educational process, are of little value in the hands of teachers who do not recognize the pupils as individuals and who fail to see their role as that of guiding and helping pupils as individuals.

in an effort to expedite mass production procedures. Such devices, al-

Another factor that interferes with the development of adequate self concepts in the classroom is the emphasis on objectivity as applied to the physical world. Feelings, attitudes, beliefs, and ideals are personal and subjective. They cannot be measured objectively, as can things in our physical world. There is a place for teaching facts and figures, but not at the expense of building favorable concepts of the self and others.

If a positive view of the self is to be emphasized, those concerned with the educative process must take a positive view of each pupil as an individual. Provisions cannot be made for the development of healthy self concepts in an environment not conducive to the growth and development of pupils toward self actualization. Such an environment requires furthermore that teachers have adequate self concepts. They serve as models for pupils and will be ineffective in their efforts if they have a negative attitude toward themselves as teachers or toward the pupils as learners. According to the viewpoint here presented the self is learned; growth, then, will proceed in accordance with the conditions surrounding the self. The role of the school, especially the teacher, is of utmost importance in the creation of a climate favorable to the development of a healthy concept of the self.

The significant differences in mean self concepts of boys and girls at both the fourth- and the sixth-grade levels would seem to indicate that at these levels girls have greater self-confidence than boys. These findings are in general agreement with those of previous investigators. Such differences may be a function of maturation, since it is well established that girls of ages nine to eleven are physically and physiologically more developed than are boys. Other possible reasons may include the fact that the more frequent contacts with women teachers and with their mothers (as compared with fathers) may have enabled girls to develop a more satisfying self-image at these developmental stages. The elementary school in the United States tends to be a woman's world, and often the values which are stressed are neatness, conformity, docility, and similar

findings are in general agreement with those of previous investigators.

traits more generally associated with the feminine role. Small wonder that boys are less successful and often reflect less confidence in themselves! In those countries where a higher proportion of men are employed as elementary teacher, particularly to teach the boys, the same patterns may not prevail. Whether or not the differences in self concepts of boys and girls would be maintained in such countries might prove to be a valuable study. The differences in the way in which boys and girls perceive themselves in our culture may or may not be inevitable. It is not clear how closely these are tied to developmental differences. However, since it is well established that self concepts are learned, it may be that less concentration (for boys at least) on some of the conventional feminine virtues, an increase in numbers and proportions of men teaching at the elementary level, even possibly more attention to pupil placement practices which do not tend to place boys at a competitive disadvantage (such as the nongraded primary plan) might assist young boys to develop more self-confidence and a better self-image.

The differences in self-concepts between boys and girls take on a greater significance when the remarkable similarity of mean self concepts at the two grade levels is noted. The sixth-grade boys perceived them-

at the two grade levels is noted. The sixth-grade boys perceived them-

selves according to the Self Concept Scale very nearly the same as the fourth-grade boys. The same phenomenon appeared for the girls at the two grade levels. While the means were very nearly the same, the standard deviations were not similar. The groups were somewhat more variable at the fourth-grade level, especially the boys. The boys and girls at the sixth-grade level had higher mean self-ideal concepts than those at the fourth grade, although the differences were not statistically significant. Here the differences in variability were even more marked, with sixth-grade boys and girls. These differences suggest that with greater maturity pupils are tending to accept the conventional value patterns of our society.

Correlations between self concepts and achievement factors were slightly to moderately positive, especially for the boys. The pattern of relationships for girls was not so clear. However, the self-ideal concepts correlated much better with achievement factors for sixth-grade girls than did self concepts. Furthermore, when the more subtle measurements provided by the projective device, the Michigan Picture Test, were correlated with achievement factors, moderately significant positive correlations were obtained. The inference is that these sixth-grade girls were somewhat more sophisticated than the. boys of their grade level, and did not reveal as clearly on the simple adjective rating scale their individual differences in self perceptions as they did on the more complex projective test. The patterns of relationship between intelligence factors and the self concepts and self ideal concepts were substantially the same as those for achievement factors: slightly to moderately positive for both boy groups, moderately positive for sixth-grade girls when the more subtle, more complex projective measurements are employed as measures of the self concept. Self ideal concept was generally related to both achievement and intelligence factors to a greater extent (that is higher and more frequently significant positive correlations) than was self concept; this was not true, however, for achievement factors and self ideal concept for fourth-grade girls.

Perhaps at first thought it would appear that the relation between self concepts and achievement (or intelligence) should be quite high and positive. Surely those who achieve success know and recognize this success and those who do not achieve success also know and recognize that they are less successful. Thus, there is a tendency for those who achieve well to have the self-confidence which results from the practice of succeeding and those who do not do so well do not have as much self-confidence and may not rank or rate themselves so highly. Such a simple explanation overlooks the variable definition of "success." One man's (or child's) success is another man's (or child's) failure. To be second in a group may represent failure to the person who desired to be first. Merely to pass or to be promoted may represent the ultimate in success to a less capable person. The "level of aspiration" or "ideal self" therefore becomes an important element in the relation between self-evaluation and achievement. If one assumes the validity of the objective measurement of achievement and intelligence, that is, as a "correspondence to reality" criterion, three groups of self-evaluators emerge (that is self-evaluators of achievement and intelligence): (1) the "correct" estimators, those who rate themselves fairly accurately with respect to their relative achievement (high rate themselves as high, medium as medium, and low as low); (2) the "under-estimators", those who perhaps have higher levels of aspiration, who see themselves as less competent or intelligent than they really are or that independent measurements indicate they are, who perform relatively better than they think they do or seem to think they do; (3) the "over-estimators", those who perhaps have lower levels of aspiration, who see themselves as more competent than they really are or that independent measurements indicate that they are, who perform relatively poorer than they think they do or seem to think they do. Thus, when correlation coefficients are computed it is only the first group which contributes to a positive correlation, whereas, the second and third groups make negative contributions to the relationship pattern. This reasoning would seem also to explain the fact that higher relationships were obtained in most instances with the measures of self ideal concept than with the self concept measures.

The findings of this study did not indicate significant patterns of relationship between interests and self concepts, except for fourth-grade girls. Fourth-grade girls showed moderately positive relationships between self concepts and all eight interest subscales and the total interest score. The instrument to measure interests did not require a choice as between several activities or objects (such as the *Kuder Preference Record* or the Allport-Vernon-Lindzey *Study of Values*). It may be that such an "ipsative" type of measure may be related more to self concept than the *What I Like To Do* inventory.

Manifest anxiety was consistently related in a significantly negative way to self concepts. Those who express greater numbers of worries or patent anxiety tend also to assign themselves a lower self rating. This finding would accord with what one would expect with the findings of previous investigators.

Other writers have stressed the importance of helping pupils to develop positive views of themselves. Such positive views should also be realistic, however, and should not conflict with reality. Apparently many pupils have appraised themselves realistically and have accepted their assets and limitations. Studies of those pupils who overestimated and who underestimated themselves were made through the application of the *Michigan Picture Test.* This test, a projective technique, furnished a check against the more direct method which made use of descriptive adjectives. Teachers and others concerned with the educative process should help the child develop accurate as well as favorable self concepts. These may at times be contradictory in nature. The child will not be able to accept himself, if he is given a distorted picture of the self by his family, peers, or teachers. Some of the fourth- and sixth-grade pupils appeared to have distorted self concepts. Through case studies of some of these the investigators were able to gather a better understanding of the basis of such concepts. Such self concepts do not contribute to self acceptance and optimum growth. These are the children who most need the teacher's acceptance. They need to learn at school and elsewhere their abilities and limitations. Many children from unfavorable home conditions feel inadequate. Through the help of understanding teachers they can arrive at a better understanding of themselves and develop adequte self concepts.

Basic to the acquisition of adequate and accurate self concepts at school is the teacher who accepts each child as a unique person and who helps him in his growth toward self-realization. This does not mean that the teacher accepts the behavior of Jim who pulls Alice's hair. Rather the teacher should accept Jim as a person striving to maintain his ego, but condemn such behavior. It is only when the teacher can accept Jim as a person that Jim can honestly accept himself as a person striving toward self-realization.

BIBLIOGRAPHY

1. Adams, Andrew A. Identifying socially maladjusted school children. Unpublished doctoral dissertation, Univer. of Southern California, 1958.

2. Alford, Genevieve G. An analysis of science interests of selected children and an identification of problems encountered by the teachers of these children in science instruction. *Dissertation Abstr.*, 1960, 20, 2704.

3. Amatora, Sister Mary. Validity and self-evaluation. *Educ. Psychol. Measmt.*, 1956, 16, 119-126.

4. Ambinder, W. J. The construction of a test of interest maturity and its relationship to other psychological and physical variables. *Dissertation Abstr.*, 1958, 18, 929.

5. Anderson, Camilla M. The self-image: a theory of dynamic behavior. *Ment. Hyg.*, 1952, 36, 227-244.

6. Andrew, Gwen, Hartwell, S. W., Hutt, M. L., Walton, R. E. *The Michigan Picture Test.* Chicago: Science Research Associates, 1953.

7. Atchison, C. O., *The Tennessee Department of Mental Health Self Concept Scale Preliminary Manual*, Undated.

8. Ausubel, D. P., Balthazar, Earl E., Rosenthal, Irene, Blackman, Leonard S., Schpoont, Seymour H., and Welkowitz, Joan. Perceived parent attitudes as determinants of children's ego structure. *Child Develpm.*, 1954, 25, 173-183.

9. Becker, Jerome. The influence of school camping on the self concepts and social relations of sixth grade school children. *J. educ. Psychol.*, 1960, 51, 352-356.

10. Berger, E. M. The relation between expressed acceptance of self and expressed acceptance of others. *J. abnorm. soc. Psychol.*, 1952, 47, 778-782.

11. Bills, R. E. Self concepts and Rorschach signs of depression. *J. consult. Psychol.*, 1954, 18, 135-137.

12. Blocher, D. H. A study of the relationships between self-description and stereotypes of occupations with high and low claimed interests. *Dissertation Abstr.*, 1959, 20, 2139.

13. Block, Jack. Personality characteristics associated with fathers' attitudes toward child-rearing. *Child Develpm.*, 1955, 26, 41-48.

14. Bloom, Kenneth L. Some relationships between age and self perception. *Dissertation Abstr.*, 1960, 21, 670.

15. Bodwin, Raymond F. The relationship between immature self concept and certain educational disabilities. *Dissertation Abstr.*, 1959, 19, 1645.

16. Brophy, A. L. Self, role, and satisfaction. *Genet. Psychol. Monogr.*, 1959, 59, 263-308.

17. Brownfain, John J. Stability of the self concept as a dimension of personality. *J. abnorm. soc. Psychol.*, 1952, 47, 597-606.

18. Bruck, Max. A study of age differences and sex differences in the relationship between self concept and grade-point average. *Dissertation Abstr.*, 1959, 19, 1646.

19. Calvin, A. D., and Holtzman, W. H. Adjustment and the discrepancy between self concept and inferred self. *J. consult. Psychol.*, 1953, 17, 39-44.

20. Carlson, Betty Rae. Parent-child relationships and the self concept of children. *Dissertation Abstr.*, 1958, 19, 1436.

21. Chickering, Arthur W. Self concept, ideal self concept, and achievement. *Dissertation Abstr.*, 1958, 19, 164.

22. Chodorkoff, Bernard. Adjustment and the discrepancy between the perceived and ideal self. *J. clin. Psychol.*, 1954, 10, 266-268.

23. Cobb, Henry V. Role-wishes and general wishes of children and adolescents. *Child Develpm.*, 1954, 25, 161-170.

24. Coopersmith, S. A method of determining types of self-esteem. *J. abnorm. soc. Psychol.*, 1959, 59, 87-94.

25. Cowen, E. L., and Tongas, P. N. The social desirability of trait descriptive terms: applications to a self concept inventory. *J. consult. Psychol.*, 1959, 23, 361-365.

26. Fey, W. F. Correlates of certain subjective attitudes toward self and others. *J. clin. Psychol.*, 1957, 13, 44-49.

27. Freud, S. The ego and the id. London: Hogarth Press, 1950.

28. Fromm, E. Selfishness and self-love. Psychiatry, 1939, 2, 507-523.

29. Gordon, I. J. Children's views of themselves. Washington, D. C.: Association for Childhood Education International, 1959.

30. Green, E. H. Insight and group adjustment. J. abnorm. soc. Psychol., 1948, 43, 49-61.

31. Hanlon, Thomas E., Hofstaetter, Peter R., and O'Conner, J. P. Congruence of self and ideal self in relation to personality adjustment. J. consult. Psychol., 1954, 18, 215-218.

32. Hawk, T. L. Concept of self as a variable in adolescent behavior. Dissertation Abstr., 1958, 19, 1014.

33. Helper, M. M. Learning theory and the self concept. J. abnorm. soc. Psychol., 1955, 51, 184-194.

34. Hickman, Norman W. The role of self-related-concept discrepancies in personal adjustment. Dissertation Abstr., 1959, 19, 2656.

35. Hilgard, E. R. Human motives and the concept of the self. Amer. Psychologist, 1949, 4, 374-382.

36. Holt, R. R. The accuracy of self-evaluation: its measurement and some of its personalogical correlates. J. consult. Psychol., 1951, 15, 95-101.

37. Horney, Karen. The neurotic personality of our times. New York: W. W. Norton, 1937.

38. Jahoda, Marie. Current concepts of positive mental health. New York: Basic Books, Inc., 1958.

39. James, William. The principles of psychology. Vol. I. New York: Holt and Co., 1890.

40. Jervis, F. M. The meaning of a positive self concept. Dissertation Abstr., 1959, 19, 3355.

41. Jersild, A. T. In search of self. New York: Bureau of Publications, Teachers College, Columbia University, 1952.

42. Koppitz, Elizabeth. Relationship between some background factors and children's interpersonal attitude. J. genet. Psychol., 1957, 91, 119-129.

43. Lecky, P. Self-consistency: a theory of personality. New York: Island Press, 1945.

44. Lepine, L. T., and Chodorkoff, B. Goal setting behavior, expressed feelings of adequacy and the correspondence between perceived and ideal self. J. clin. Psychol., 1955, 11, 395-397.

45. Lipsitt, L. P. A self concept scale for children and its relationship to the Children's Form of the Manifest Anxiety Scale. Child Develpm., 1958, 29, 463-472.

46. Lumpkin, D. D. The relationship of self concept to achievement in reading. Dissertation Abstr., 1959, 20, 204.

47. Marshall, R. J. Variation in self attitudes and attitudes toward others as a function of peer group appraisals. Dissertation Abstr., 1958, 18, 2239.

48. Marten, M. E. The relationship between expressed interests and listening skills of children in the sixth grade. Dissertation Abstr., 1959, 19, 2295.

49. Maslow, A. H. Motivation and personality. New York: Harper, 1954.

50. McCandless, B. R. Children and adolescents. New York: Holt, Rinehart and Winston, 1961.

51. McQuitty, L. L. A measure of personality integration in relation to the concept of self. J. Pers., 1950, 18, 461-482.

52. Miyamoto, S. F., and Dornbusch, S. M. A test of interactionist hypotheses of self-conception. Amer. J. Sociol., 1956, 61, 399-403.

53. Omwake, Katharine T. The relation between acceptance of self and acceptance of others shown by three personality inventories. J. consult. Psychol., 1954, 18, 443-446.

54. Perkins, H. V. Factors influencing change in children's self concepts. Child Develpm., 1958, 29, 221-230.

55. Phillips, E. L. Attitudes toward self and others: a brief questionnaire report. J. consult. Psychol., 1951, 15, 79-81.

56. Reckless, W. C., Dinitz, S., and Kay, Barbara. The self component in potential delinquency and potential non-deliquency. Amer. sociol. Rev., 1957, 22, 566-570.

57. Reeder, L. G., Donohue, G. A., and Biblarz, Arturo. Conceptions of self and others. *Amer. J. Sociol.*, 1960, 66, 153-159.

58. Rogers, C. R. *Client-centered therapy*. Boston: Houghton Mifflin, 1951.

59. Rogers, C. R., Kell, B. L., and McNeil, Helen. The role of self-understanding in the prediction of behavior. *J. consult. Psychol.*, 1948, 12, 174-186.

60. Russel, D. H. What does research say about self-evaluation? *J. educ. Res.*, 1953, 46, 561-571.

61. Shoben, E. J., Jr. Toward a concept of the normal personality. *Amer. Psychologist*. 1957, 12, 183-189.

62. Silver, A. W. The self concept: its relationship to parental and peer acceptance. *Dissertation Abstr.*, 1958, 19, 166.

63. Smith, G. M. Six measures of self concept discrepancy and instability: their interrelations, reliability, and relations to other personality measures. *J. consult. Psychol.*, 1958, 22, 101-112.

64. Snygg, Donald and Combs, A. W. *Individual behavior: a new frame of reference for psychology*. New York: Harper and Brothers, 1949.

65. Stock, Dorothy. An investigation into the interrelations between the self concept and feelings directed toward other persons and groups. *J. consult. Psychol.*, 1949, 13, 176-180.

66. Sutton-Smith, B., and Rosenberg, B. G. Manifest anxiety and game preference in children. *Child Develpm.*, 1960, 31, 307-311.

67. Tatum, C. D. The influence of parental acceptance on selected self factors in children. *Dissertation Abstr.*, 1957, 17, 97.

68. Walsh, Ann Marie. *Self concepts of bright boys with learning difficulties*. New York: Bureau of Publications, Teachers College, Columbia University, 1956.

69. Webb, W. B. Self evaluation compared with group evaluations. *J. consult. Psychol.*, 1952, 16, 305-307.

70. Wylie, Ruth C. Some relationships between defensiveness and self concept discrepancies. *J. Pers.*, 1957, 25, 600-616.

71. Wylie, Ruth C. *The self concept*. Lincoln, Nebraska: Univ. Nebraska Press, 1961.

72. Bills, R. E., Vance, E. L., and McLean, O.S. An index of adjustment and values. *J. Consult. Psychol.*, 1951, 15, 257-261.

73. Bonsall, M.R., Meyers, C.E., and Thorpe, L. P. What I like to do, an inventory of children's interests. Chicago: *Science Research Associates*, 1954.

74. Castaneda, A., McCandless, B.R. and Palermo, D.S. The children's form of the manifest anxiety scale. *Child Develpm.*, 1956, 27, 317-326.

75. Eubank, Grace Jones. A comparative study of elementary pupils whose self-concepts are markedly contrary to expectations. Ed.D. dissertation, University of Georgia, 1962.

76. Kitano, Harry H. L. Validit of the children's manifest anxiety scale and the modified revised california inventory. *Child Develpm.*, 1960, 31, 67-72.

77. McCandless, B.R., and Casteneda, Alfred. Anxiety in children, school achievement and intellignece. *Child Develpm.*, 1956, 27, 379-382.

78. Sullivan, Elizabeth T., Clark, Willis W., and Tiegs, Ernest W. *California short-form test of mental maturity*. Los Angeles: California Test Bureau, 1957.

79. Taylor, Janet A. A personality scale of manifest anxiety. *J. Abn. and Soc. Psychol.*, 1953, 48, 285-290.

80. Tiegs, E. W., and Clark, W. W. *California Achievement tests complete battery, upper primary and elementary*. Los Angeles: California Test Bureau, 1957.

81. Shoben, Edward J., Jr. The assessment of parental attitudes in relation to child adjustment. *Genetic Psychology Monographs*, 1949, 39, 103-147.

SUPPLEMENTARY BIBLIOGRAPHY

Adams, A. A. Identifying socially maladjusted school children. Unpublished doctoral dissertation, Univer. Southern California, 1958.

Ausubel, D. P. *Ego development and the personality disorders.* New York: Gruen and Stratton, 1952.

Baldwin, A. L. Socialization and the parent-child relationship. *Child develpm.*, 1948, 19, 127-136.

Becker, W. C., Peterson, D. R., Hellmer, L. A., Shoemaker, D. J., and Quay, H. C. Factors in parental behavior and personality as related to problem behavior in children. *J. consult. Psychol.*, 1959, 23, 107-118.

Bending, A. W. Age, sex, and the manifest anxiety test. *J. consult. Psychol.*, 1954, 18, 16.

Benjamins, J. Changes in performance in relation to influences upon self-conceptualization. *J. abnorm. soc. Psychol.*, 1950, 45, 473-480.

Bills, R. E. Acceptance of self as measured by interviews and the Index of Adjustment and Values. *J. consult. Psychol.*, 1954, 18, 22.

Bills, R. E. Personality changes during student centered teaching. *J. educ. Res.*, 1956, 50, 121-126.

Bills, R. E. Rorschach characteristics of persons scoring high and low acceptance of self. *J. consult. Psychol.*, 1953, 17, 36-38.

Bledsoe, Joseph C. Sex differences in mental health analysis scores of elementary pupils. *J. consult. Psychol.*, 1961, 25, 364-365.

Bozeman, Alvia Lois. An analysis of self concept of pre-school children. *Dissertation Abstr.*, 1958, 19, 2510.

Bruce, Paul. Relationships of self-acceptance to other variables with sixth-grade children oriented in self-understanding. *J. educ. Psychol.*, 1958, 49, 229-238.

Chodorkoff, Bernard. Self perception, perceptual defense, and adjustment. *J. abnorm. soc. Psychol.*, 1954, 49, 508-512.

Cohen, L. D. Level-of-aspiration behavior and feelings of adequacy and self-acceptance. *J*. *abnorm*. *soc*. *Psychol*., 1954, 49, 84-86.

Cowen, E. L., Heilizer, F., and Axelrod, H. S. Self concept conflict indicators and learning. *J*. *abnorm*. *soc*. *Psychol*., 1955, 51, 242-245.

Deese, J., Lazarus, R. S., and Keenon, J. Anxiety, anxiety reduction, and stress in learning. *J*. *exp*. *Psychol*., 1953, 46, 55-60.

Doleys, E. J. The effect of failure on verbal learning as a function of self-acceptance. *Dissertation* *Abstr*., 1957, 17, 3096.

Engel, Mary. The stability of the self-concept in adolescence. *J*. *abnorm*. *soc*. *Psychol*., 1959, 28, 211-215.

Garfinkle, M. The relationship between general self concept, role self concept and role behavior in high school. *Dissertation* *Abstr*., 1958, 19, 897.

Havighurst, R. J., Robinson, Myra Z., and Dorr, Mildred. The development of the ideal self in childhood and adolescence. *J*. *educ*. *Res*., 1946, 40, 241-257.

Levy, L. H. The meaning and generality of perceived actual-ideal discrepancies. *J*. *consult*. *Psychol*., 1956, 20, 396-398.

McCandless, B. R., and Castaneda, A. Anxiety in children, school achievement, and intelligence. *Child* *Develpm*., 1956, 27, 379-382.

Perkins, H. V. Teachers' and peers' perceptions of children's self-concepts. *Child* *Develpm*., 1958, 29, 203-220.

Reckless, W. C., Dinitz, S., and Murray, Ellen. Self-concept as an insulator against delinquency. *Amer*. *sociol*. *Rev*., 1956, 21, 744-746.

Rogers, C. R. Some observations on the organization of personality. *Amer*. *Psychologist*, 1947, 2, 358-368.

Sarbin, T. R. A preface to a psychological analysis of the self. *Psychol*. *Rev*., 1952, 59, 11-22.

Stein, M. I. The use of a sentence completion test for the diagnosis of personality. *J*. *clin*. *Psychol*., 1947, 3, 47-56.

Steiner, I. D. Self-perception and goal-setting behavior. *J*. *Pers*., 1956, 25, 344-355.

Taylor, Janet A. The Taylor Manifest Anxiety Scale and intelligence. J. abnorm. soc. Psychol., 1955, 51, 347-348

Wrenn, C. G. The self concept in counseling. J. counsel. Psychol., 1958, 5, 104-109.

Zimmer, H. Self-acceptance and its relation to conflict. J. consult. Psychol., 1954, 18, 447-449.

4

APPENDICES

APPENDIX A

INFORMATION SHEET

NAME ____

ADDRESS ____

SCHOOL ______________________________ GRADE 4 5 6

DATE OF BIRTH ____

ATTENDED THIS SCHOOL 1 2 3 4 5 6 REPEATED GRADES 1 2 3 4 5 6

FATHERS OCCUPATION __________________ MOTHERS OCCUPATION __________________

FATHERS EDUCATION __________________ MOTHERS EDUCATION __________________

ABSENCES: (1)_____ (2)_____ (3)_____ (4)_____ (5)_____ (6)_____

MARKS: (1)_____ (2)_____ (3)_____ (4)_____ (5)_____ (6)_____

NUMBER OF BROS.________ NUMBER OF SISTERS________ RELIGIOUS PREFERENCE________

HEALTH RECORD ____

MISCELLANEOUS ____

INTELLIGENCE CALIF. FROM ______________ OR OTHER ______________

Language I.Q.:

Raw Score__________ MA__________ CA__________ IQ__________ GP__________

TOTAL IQ__________________ TOTAL GP__________________

Non Language:

Raw Score__________ MA__________ CA__________ IQ__________ GP__________

Achievement: Reading Vocabulary - Raw Score__________ GP__________

Reading Comrehension - Raw Score________ GP__________ R. Total & GP__________

Arithmetic Reas.: Raw Score______________ GP______________

Arithmetic Fund.: Raw Score______________ GP______________

Arithmetic Total: GP______________

Mech. of English: Raw Score______________ GP______________

Spelling: Raw Score______________ GP______________

Language Achievement: GP ____________ Battery GP ____________

Any other test data: ____

PRECEDING PAGE BLANK-NOT FILMED

APPENDIX B

WHAT I LIKE TO DO

An Inventory of Children's Interests

Profile Chart for Boys - Grade 4

Name____

School____

Teacher____

Percentiles	A	B	C	D	E	F	G	H	Percentiles
	Art	Music	Social Studies	Active Play	Quiet Play	Manual Arts	Home Arts	Science	
-99-	29	29	43	40	33	26	30	62	-99-
-95-	23	23	40	39	31		27		-95-
-90-	21	21	38	37	29	25	24	61	-90-
-80-	18	16	34	34	26	21	21	58	-80-
-70-	16	14	31	32	24	18	17	54	-70-
-60-	15	12	28	30	22	16	14	49	-60-
-50-	14	10	24	27	20	14	12	44	-50-
-40-	12	9	21	25	18	11	9	37	-40-
-30-	11	7	19	23	16	9	7	30	-30-
-20-	9	5	15	20	13	7	5	22	-20-
-10-	7	3	10	16	10	5	2	13	-10-
- 5-	5	2	6	13	8	3	1	5	- 5-
- 1-	2	1	1	1	3	0	0	1	- 1-

WHAT I LIKE TO DO

An Inventory of Children's Interests

Profile Chart for Girls - Grade 4

Name____

School____

Teacher____

Percentiles	A	B	C	D	E	F	G	H	Percentiles
	Art	Music	Social Studies	Active Play	Quiet Play	Manual Arts	Home Arts	Science	
-99-	29	30	42	39	33	26	30	62	-99-
-95-	25	27	40	36	31	24		61	-95-
-90-	23	25	37	34	29	22	29	60	-90-
-80-	21	22	32	31	27	17	26	56	-80-
-70-	19	19	29	28	25	14	24	50	-70-
-60-	17	17	26	26	23	12	21	44	-60-
-50-	16	16	23	23	21	10	19	39	-50-
-40-	14	14	19	21	19	8	16	34	-40-
-30-	13	12	17	19	17	6	14	27	-30-
-20-	12	10	13	16	15	4	11	20	-20-
-10-	10	7	9	13	11	3	8	12	-10-
- 5-	8	5	5	9	9	1	6	6	- 5-
- 1-	3	1	1	1	3	0	2	1	- 1-

WHAT I LIKE TO DO

An Inventory of Children's Interests

Profile Chart for Boys - Grade 6

Name____

School____

Teacher____

Percentiles	A	B	C	D	E	F	G	H	Percentiles
	Art	Music	Social Studies	Active Play	Quiet Play	Manual Play	Home Arts	Science	
	14.1								
-99-	26	25	42	38	31	26	29	62	-99-
-95-	21	21	41	36	28	24	23	61	-95-
-90-	19	18	38	34	26	22	20	60	-90-
-80-	16	16	33	32	24	19	16	56	-80-
-70-	15	13	30	30	21	16	12	50	-70-
-60-	13	11	27	27	20	14	11	45	-60-
-50-	12	10	24	26	18	12	9	39	-50-
-40-	10	8	21	24	16	10	7	32	-40-
-30-	9	6	17	22	14	8	5	27	-30-
-20-	7	4	14	19	12	6	3	19	-20-
-10-	4	2	9	15	8	4	1	11	-10-
- 5-	2	1	6	12	6	2	0	5	- 5-
- 1-	0	0	1	6	1	0		0	- 1-

WHAT I LIKE TO DO

An Inventory of Children's Interest

Profile Chart for Girls - Grade 6

Name____________________________________

School____________________________________

Teacher____________________________________

Percentiles	A	B	C	D	E	F	G	H	Percentiles
	Art	Music	Social Studies	Active Play	Quiet Play	Manual Arts	Home Arts	Science	
-99-	28	29	42	39	32	25	30	61	-99-
-95-	24	27	39	35	29	22	29	60	-95-
-90-	22	25	36	33	26	19	27	56	-90-
-80-	20	22	32	30	24	15	24	49	-80-
-70-	19	19	28	28	22	12	22	43	-70-
-60-	17	18	25	26	20	10	20	38	-60-
-50-	16	16	22	23	19	9	18	33	-50-
-40-	15	15	20	22	17	7	17	28	-40-
-30-	13	13	17	19	15	6	15	22	-30-
-20-	12	11	13	17	13	4	12	16	-20-
-10-	10	9	9	14	10	2	9	10	-10-
- 5-	7	6	6	12	8	1	7	5	- 5-
- 1-	3	3	3	7	3	0	2	1	- 1-

APPENDIX C

Self-Concept Scale

There is a need for each of us to know more about what we are like. This is to help you describe yourself and to describe how you would like to be. There are no right or wrong answers; each person may have different ideas. Answer these according to your feelings. It is important for you to give your own honest answers.

Think carefully and check the answer that tells if you are like the word says Nearly Always, About ½ the Time, or Just Now and Then. In the second column check the answer if you would like to be like the word says Nearly Always, About ½ the Time, or Just Now and Then.

THIS IS THE WAY I AM				THIS IS THE WAY I'D LIKE TO BE		
Nearly Always	About ½ the Time	Just Now and Then		Nearly Always	About ½ the Time	Just Now and Then
			Friendly			
			Obedient			
			Honest			
			Thoughtful			
			Brave			
			Careful			
			Fair			
			Mean			
			Lazy			
			Truthful			
			Smart			
			Polite			
			Clean			
			Kind			
			Selfish			
			Helpful			
			Good			
			Cooperative			
			Cheerful			
			Jealous			
			Sincere			
			Studious			
			Loyal			
			Likeable			
			A good sport			
			Useful			
			Dependable			
			Bashful			
			Happy			
			Popular			

APPENDIX D
Child Self-Description Scale

Instructions: We want to know more about what boys and girls your age are like. Here are a lot of things that boys and girls might say about themselves, their interests, and likes and dislikes. Read carefully each group of five things and decide which one tells most what you are like; then mark it with a + in the margin. Then find the one which is least like you and mark it with a -. Sometimes it may be hard to make up your mind between several of these things but you can always find one that is a little more like you than the others, and one that is a little less like you. Be sure to mark just one + and one - in every group of five things before going on. Don't spend a lot of time deciding; just mark the ones you think of first. There are no right or wrong answers. Each person is different and should say what is true for him. You do not need to write your name, so mark the questions as truthfully as you can.

Which of these is your favorite school subject? Which one do you like least?

_____ 1. reading
_____ 2. arithmetic
_____ 3. history
_____ 4. science
_____ 5. art

Which of these things would you most like to be when you are older? Which least?

_____ 6. scientist
_____ 7. reporter
_____ 8. office manager
_____ 9. actor
_____10. engineer

Here are some things which many of you will expect to do later on. Which is most important to you? Which least?

_____11. go to college
_____12. get married someday
_____13. get a job right after High School
_____14. travel a lot
_____15. make a great deal of money

Which of these things tells most what you are like? Which one is least like you?

_____16. look older than my age
_____17. slow-moving, easy-going
_____18. small, delicate build
_____19. strong, solid build
_____20. quick and active

_____21. good at sports
_____22. good looking
_____23. know how to do interesting things
_____24. usually a leader in groups
_____25. good in school work

_____26. have a good imagination
_____27. can make people laugh
_____28. willing to take chances
_____29. know many people
_____30. polite and courteous

_____31. lively, full of fun
_____32. friendly and helpful
_____33. have good ideas
_____34. dependable and serious
_____35. make up my mind quickly

_____36. stick to a job until it's finished
_____37. get very excited about things
_____38. always neat and careful
_____39. cannot be fooled easily
_____40. have a good memory

Which of these things tells most what you are like? Which one is least like you?

_____41. I usually go up to talk to a new pupil at school.
_____42. I'm pretty sure of what I want to do when I'm older.
_____43. I'm usually chosen to be in school plays and programs.
_____44. I get along with my teachers better than most kids do.
_____45. I'm usually the one who thinks up new games and things to do.

_____46. I don't like to have to try new games at parties.
_____47. I get nervous when I talk to teachers.
_____48. It's hard to be nice to people I don't like.
_____49. I don't think we learn very important things in school.
_____50. I don't care much for team games.

_____51. I usually pick out my own clothes.
_____52. I read a lot for fun.
_____53. I like to run and play hard.
_____54. I like to sing or speak in front of people.
_____55. I like to be the leader of games.

_____56. I think about a lot of dangerous things.
_____57. I have to be very careful of my health.
_____58. I'm not doing as well as I should in school work.
_____59. I don't like my first name.
_____60. It bothers me a lot to lose at games.

_____61. I spend a lot of time keeping neat and attractive.
_____62. I've helped to plan a lot of parties.
_____63. I save most of my spending money.
_____64. I've had better luck than most people I know.
_____65. I spend a lot of my time on my hobbies.

_____66. I think a lot about mistakes I've made.
_____67. Some kids think I'm too bossy.
_____68. I have a lot of bad dreams.
_____69. People treat me like a baby too much of the time.
_____70. People hurt my feelings a lot.

_____71. I like to play in team games against other schools.
_____72. I can usually get kids to stop arguing and make up.
_____73. I'd rather figure things out for myself before asking for help.
_____74. I'm practically never sick.
_____75. My friends spend a lot of time at my house.

_____76. My ideas don't turn out very well.
_____77. I wish I had better looking clothes.
_____78. Sometimes I can't make myself do things I like, even when I'm invited to do them.
_____79. It's hard to make friends with the people I like best.
_____80. I think most grown-ups are too strict.

_____81. I generally do my work around the house without being told what to do.
_____82. My parents usually try to give me the things I want.
_____83. I usually try to get my folks' advice before I make up my mind about things.
_____84. My folks are interested in helping me with my school work.
_____85. At home I usually help decide what the family is going to do.

_____86. I don't like to borrow or lend things.
_____87. When I read a very sad story, I can't help crying a little.
_____88. I don't care much about dogs or other pets.
_____89. I have my best times with boys and girls who are younger.
_____90. I'd rather do things with grown-ups - it's boring to play with kids all the time.

_____91. I take time to be sure I know the answer before I say things in class.
_____92. I can usually take a joke on myself without feeling bad.
_____93. I've worked on projects to raise money for school or community drives.
_____94. I usually tell people when they have done something well.
_____95. People seem to think I'm rather nice looking.

APPENDIX E

CHILDREN'S MANIFEST ANXIETY SCALE

Directions: Read each statement carefully. Put a circle around the word Yes if you think it is true about you. Put a circle around the work No if you think it is not true about you.

Yes No 1. It is hard for me to keep my mind on anything.

Yes No 2. I get nervous when someone watches me work.

Yes No 3. I feel I have to be best in everything.

Yes No 4. I blush easily.

Yes No 5. I notice my heart beats very fast sometimes.

Yes No 6. I like everyone I know.

Yes No 7. At times I feel like shouting.

Yes No 8. I wish I could be very far from here.

Yes No 9. Others seem to do things easier than I can.

Yes No 10. I am secretly afraid of a lot of things.

Yes No 11. I feel that others do not like the way I do things.

Yes No 12. I would rather win than lose in a game.

Yes No 13. I feel alone even when there are people around me.

Yes No 14. I have trouble making up my mind.

Yes No 15. I get nervous when things do not go the right way for me.

Yes No 16. I worry most of the time.

Yes No 17. I worry about what my parents will say to me.

Yes No 18. I am always kind.

Yes No 19. Often I have trouble getting my breath.

Yes No 20. I get angry easily.

Yes No 21. My hands feel sweaty.

Yes No 22. I have to go to the toilet more than most people.

Yes No 23. Other children are happier than I.

Yes No 24. I always have good manners.

Yes No 25. I worry about what other people think about me.

Yes No 26. I have trouble swallowing.

Yes No 27. I have worried about things that did not really make any difference later.

Yes No 28. My feelings get hurt easily.

Yes No 29. I worry about doing the right things.

Yes No 30. I am always good.

Yes No 31. I worry about what is going to happen.

Yes No 32. It is hard for me to go to sleep at night.

Yes No 33. I worry about how well I am doing in school.

Yes No 34. My feelings get hurt easily when I am scolded.

Yes No 35. I often get lonesome when I am with people.

Yes No 36. I am always nice to everyone.

Yes No 37. I feel someone will tell me I do things the wrong way.

Yes No 38. I am afraid of the dark.

Yes No 39. It is hard for me to keep my mind on my schoolwork.

Yes No 40. Often I feel sick in my stomach.

Yes No 41. I worry when I go to bed at night.

Yes No 42. I tell the truth every single time.

Yes No 43. I never get angry.

Yes No 44. I often do things I wish I had never done.

Yes No 45. I get headaches.

Yes No 46. I often worry about what could happen to my parents.

Yes No 47. I get tired easily.

Yes No 48. I never say things I shouldn't.

Yes No 49. It is good to get high grades in school.

Yes No 50. I have bad dreams.

Yes No 51. I am nervous.

Yes No 52. I often worry about something bad happening to me.

Yes No 53. I never lie.